



ENVIRONMENTAL ASSESSMENT BOARD

VOLUME: 374

DATE: Wednesday, April 29, 1992

BEFORE:

A. KOVEN Chairman

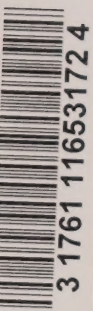
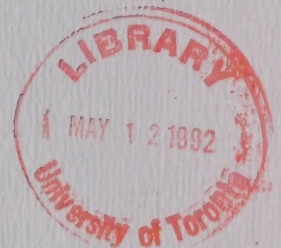
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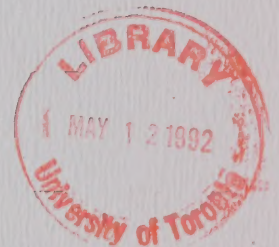
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HEARING ON THE PROPOSAL BY THE MINISTRY OF NATURAL
RESOURCES FOR A CLASS ENVIRONMENTAL ASSESSMENT FOR
TIMBER MANAGEMENT ON CROWN LANDS IN ONTARIO

IN THE MATTER of the Environmental
Assessment Act, R.S.O. 1980, c.140;

- and -

IN THE MATTER of the Class Environmental
Assessment for Timber Management on Crown
Lands in Ontario;

- and -

IN THE MATTER of a Notice by The Honourable
Jim Bradley, Minister of the Environment,
requiring the Environmental Assessment
Board to hold a hearing with respect to a
Class Environmental Assessment (No.
NR-AA-30) of an undertaking by the Ministry
of Natural Resources for the activity of
Timber Management on Crown Lands in
Ontario.

Hearing held at the offices of the Ontario
Highway Transport Board, 10th Floor, 151 Bloor
Street West, Toronto, Ontario, on Wednesday,
April 29th, 1992, commencing at 9:00 a.m.

VOLUME 374

BEFORE:

MRS. ANNE KOVEN
MR. ELIE MARTEL

Chairman
Member



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MS. C. BLASTORAH)	RESOURCES
MS. K. MURPHY)	
MR. B. CAMPBELL)	
MS. J. SEABORN)	MINISTRY OF ENVIRONMENT
MS. N. GILLESPIE)	
MR. R. TUER, Q.C.)	ONTARIO FOREST INDUSTRY
MR. R. COSMAN)	ASSOCIATION and ONTARIO
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I N D E X O F P R O C E E D I N G S

<u>Witness:</u>	<u>Page No.</u>
<u>HERB BAX,</u> <u>DARLENE DAHL,</u> <u>BERNIE NEARY</u> ; Resumed	64964
Continued-Cross-Examination by Mr. Hanna	64964
Cross-Examination by Mr. Cassidy	65078

I N D E X O F E X H I B I T S

<u>Exhibit No.</u>	<u>Description</u>	<u>Page No.</u>
2218	Five-page document entitled: 1989 Statistics from Ontario's Forest Products Accident Prevention Association.	65080
2219	Three-page document entitled: Roto-Lim, The New Concept In Economical Delimbing.	65091

1 ---Upon commencing at 9:00 a.m.

2 MADAM CHAIR: Good morning. Please be
3 seated.

4 Good morning, Mr. Hanna.

5 MR. HANNA: Good morning, Madam Chair,
6 Mr. Martel.

7 HERB BAX,
8 DARLENE DAHL,
BERNIE NEARY, Resumed

9 CONTINUED CROSS-EXAMINATION BY MR. HANNA:

10 Q. Ms. Dahl, I understand that you're
11 feeling a little bit better this morning, hopefully
12 that was because of our enjoyable exchange yesterday.

13 I'd like to continue on where we left
14 off, not with sort of the discussions we had on the
15 purpose of the Act, but with some of the other aspects
16 of Question 19 in the interrogatory responses which was
17 Tab 2, page 25, Exhibit 2201.

18 Now, you say in response to part (i) of
19 the interrogatory which asks for a list of the specific
20 activities that would comprise the forest management
21 that are distinctly different than the activities
22 associated with timber management.

23 And you replied that:

24 "The activities are not different, but
25 that the objectives for which a plan is

1 developed would be different.

2 Accordingly the range of alternatives,
3 criteria for evaluation, weighting of
4 criteria, mitigation considerations and
5 so on are all different."

6 Correct?

7 MS. DAHL: A. Yes.

8 Q. Now, I would like to deal with those
9 matters individually. First of all, I would like to
10 know what criteria for evaluation that you would expect
11 in a timber management plan and you would not expect in
12 a forest management plan?

13 A. There may be criteria dealing with
14 your ability perhaps to improve wildlife habitat that
15 may not be part of a timber management plan if that is
16 not a concern with expected -- or those sort of
17 environmental effects are not expected then, you may
18 not consider that as one of your criteria.

19 Q. Are not expected -- I'm sorry, I
20 didn't hear the word. Is that what you said?

21 A. Yes, or not expected to be
22 significant.

23 Q. So you're suggesting that in a forest
24 management plan if you had an impact that you didn't
25 expect was significant that you would include that

1 criteria, but in a timber management plan you wouldn't
2 include that criteria?

3 A. No. I think if your objective is to
4 improve wildlife habitat, then you would design
5 criteria for evaluation around your ability to achieve
6 that objective, which may not be the case in a timber
7 management plan where you have a somewhat different
8 objective.

9 Q. Well, let's forget about objectives,
10 let's talk about an environmental evaluation of a
11 timber management plan.

12 Are you suggesting that the impact of a
13 timber management plan on wildlife habitat is not an
14 appropriate evaluation criteria?

15 A. No, but whether or not it's a
16 criteria would depend on whether you expected those
17 impacts in that particular area.

18 Q. If you didn't expect those impacts
19 you'd still expect that to be a criteria in a forest
20 management plan and not in a timber management plan?

21 It sounds to me like you're using the
22 same measure -- that measure would apply whether it's
23 a forest management plan or a timber management plan.

24 A. I think it would depend on the
25 situation.

1 Q. Do you have any other evaluation
2 criteria that you would expect in a forest management
3 plan that you would not expect in a timber management
4 plan?

5 A. I am not certain I can think of
6 specific examples.

7 Q. All right.

8 A. It would depend on I think the
9 situation.

10 Q. Is there some authoritative base
11 you're using as your reference point or support for
12 your opinion on these matters? Is there some text or
13 some body of knowledge that you're using to say this is
14 the basis upon which I, as an environmental planner,
15 have come to this conclusion?

16 A. I think my opinion would just be
17 based on my experience with environmental assessments
18 that I've viewed.

19 Q. Have you ever done an assessment of a
20 forest management plan?

21 A. As I said yesterday, no, I haven't.

22 Q. Have you ever reviewed a forest
23 management plan? Have you ever seen a forest
24 management plan?

25 A. I've reviewed a number of timber

1 management plans, sorry, not a forest management plan,
2 no.

3 Q. I see. All right. Now, in terms of
4 the weighting of criteria, how would you expect the
5 weighting of criteria to differ between a timber
6 management plan and a forest management plan?

7 A. Again, I think the weighting of
8 criteria relates to the objectives that you're trying
9 to achieve.

10 Q. Well, let's take a specific example.
11 Let's take wildlife habitat and say in one timber
12 management plan wildlife habitat is an impact that is
13 associated with the timber management activity, and
14 you'll agree that to establish that weight we go out to
15 the public and say: What is the social priority that
16 you place on that wildlife habitat as opposed to say
17 timber supply. That's how we go about getting the
18 weight; correct?

19 A. I would agree. But, again, I would
20 have to say that I think it's related as well to the
21 objectives that you're attempting to achieve in
22 developing your plans.

23 Q. The public's priorities, the public's
24 social values that the public hold are relative to an
25 objective. I don't understand that. Can you explain

1 that to me?

2 A. Well, the public priorities certainly
3 have a role to play in weighting the criteria, but
4 another factor that has to be considered is the
5 proponent's objectives when you're determining what the
6 final weighting is going to be.

7 MADAM CHAIR: Mr. Hanna, are you
8 examining Ms. Dahl on how choices will be made between
9 the local citizens committee and the planning team?

10 MR. HANNA: Madam Chair, my concern is
11 this; and, that is, the casting of the proposals by the
12 Coalition is forest management and the Ministry in its
13 responses to the interrogatories have used a series of
14 criteria to try to differentiate timber management from
15 forest management, and I'm concerned that that is left
16 as a reasonable basis to make that differentiation.

17 The position of my client is that when it
18 comes down to it, when you take everything away, there
19 is no difference. In other words, what we're proposing
20 is timber management. The weighting of the criteria
21 will be the same, the evaluation criteria will be the
22 same, the mitigation measures will be the same, there's
23 no difference, at least not substantially in the way
24 that I see what we're proposing.

25 Now, you've asked me to say what's forest

1 management, I can see proposing a whole series of
2 activities that aren't within the scope of this
3 undertaking, but I am concerned that this has been cast
4 in that light, and that's the reason I'm pursuing it.

5 MADAM CHAIR: Well, I think the Board --
6 Ms. Seaborn.

7 MS. SEABORN: I was just going to say,
8 Mr. Hanna, Ms. Dahl made it quite clear in her response
9 that, in her view, that it depended on the objectives,
10 and then you went along and questioned her and said:
11 Well, push the objectives aside. And then you asked a
12 series of questions. So...

13 MR. HANNA: Well, we did deal with the
14 objectives yesterday Ms. Seaborn, as I'm sure you're
15 aware.

16 MS. SEABORN: She responded to the
17 interrogatory and to your questions this morning about
18 the difference in respect of the objectives were the
19 difference between the two. I think she made that
20 quite clear.

21 MR. HANNA: And I asked her for a
22 specific example of that and I'm yet to have one.

23 MADAM CHAIR: Mr. Hanna, you certainly
24 brought to the Board's attention your concern about how
25 the Ministry of the Environment has characterized your

1 party's position and we expect to hear from you in
2 argument on that, so I don't know if Ms. Dahl's
3 comments are going to be any more helpful than what's
4 in the written evidence at this point.

5 MR. MARTEL: That's why yesterday
6 afternoon, Mr. Hanna, I asked you if you were trying to
7 knock down the assumption that the Ministry had made
8 with respect to your position, and I went directly to
9 that quote and the three or four words which implied
10 that that's what they were saying and asked you to
11 short circuit the whole thing by nailing it on the
12 head, so to speak, as to how is it that they can reach
13 that characterization of your position.

14 And I said yesterday I thought the
15 simplest way to deal with it is to in fact question on
16 that precisely, how did they make that determination
17 rather than trying to systematically take each step
18 apart in the subsequent answer, because I'm not sure
19 how much good that's going to do. But making them
20 answer the real significant question, they have to
21 answer that, that will clear it up in my opinion.

22 MR. HANNA: Q. Ms. Dahl, if the
23 Coalition's proposals were cast in the sense of instead
24 of objectives for non-timber values, net effects for
25 non-timber values, would the Coalition's proposals then

1 be consistent with your view of what constitutes timber
2 management?

3 MS. DAHL: A. I'm not certain I
4 understand the proposition that you're putting forward.
5 Perhaps you can try to clarify it.

6 Q. All right. We have an objective in
7 the plan, the objective is to provide a certain volume
8 of wood over a certain period of time. That's what
9 you're seeing as timber management, that single
10 objective; is that correct, as the objective of the
11 plan?

12 A. I believe that's certainly part of
13 it. That's what's been put forward as the objective of
14 the undertaking.

15 Q. All right. Now, we have that
16 objective and we have associated with that objective or
17 certainly a series of alternatives and a preferred
18 alternative to achieve that objective, a range of net
19 effects, and the preferred alternative has a range of
20 net effects and some of those net effects is effects on
21 wildlife habitat, on water quality, on remote tourism,
22 on a whole variety of things.

23 Those net effects become a point of
24 reference also in terms of whether or not the activity
25 is meeting the desired end that we have set in

1 approving that undertaking; is that correct?

2 A. Yes, I would agree with that.

3 Q. And if the objectives that we've
4 referred to in the Coalition's proposals as resource
5 benefits, we separate those out and we have the net
6 effects are all those effects associated with
7 non-timber values and the timber values are the
8 objectives of the plan, would the proposals by the
9 Coalition then be timber management in your lexicon?

10 A. I believe so, but I would also add
11 that there are also net effects associated with the
12 timber values that are also important to consider.

13 Q. I agree. Community impacts, those
14 types of things?

15 A. Yes.

16 Q. Now, part (o) of that interrogatory,
17 Interrogatory Question 19, asked:

18 "Explain how the impacts of timber
19 management on all other resources must be
20 taken into consideration differs at all
21 from the evaluating the advantages,
22 disadvantages and net effects of
23 alternative methods of applying timber
24 management activities on timber and
25 non-timber values?"

1 And your response to that was that:

2 "It does not differ, however, there are a
3 variety of ways in which the impacts can
4 be taken into consideration."

5 And you state:

6 "For example, net effects may not always
7 be predictable."

8 Now, for those effects that are
9 predictable, should a net effects analysis be
10 conducted?

11 A. It's certainly important to consider
12 what the net effects of the activities will be, that
13 assists you in determining what your advantages and
14 disadvantages are going to be. That is the importance
15 of considering net effects.

16 Q. I take it that was a yes then?

17 A. Yes.

18 Q. And the net effects is also important
19 in terms of monitoring the plan while it's being
20 carried out in order to see if the effects of the plan
21 are those that were predicted?

22 A. Yes.

23 Q. Now, I would like to turn to Question
24 20, if I could please. Now, this is dealing with page
25 4 of the witness statement behind Tab 3.

1 And is it fair to say that there's a
2 general concern in the responses that the Ministry and
3 you have given to the interrogatories with respect to
4 the level of detail that the Coalition is proposing?

5 A. Yes.

6 Q. Now, as I understand it, your concern
7 with the level of detail is the time and cost that
8 might be involved; is that correct?

9 A. It's certainly part of it, yes.

10 Q. What are the other parts?

11 A. I think that it's important to
12 consider who will be carrying out the timber management
13 planning; in other words, field staff across the area
14 of the undertaking, and it's also important to have a
15 process which is manageable and which they will be able
16 to implement with relative ease without too much
17 difficulty.

18 Q. So both of those are resource
19 problems: Do we have the people out there that have
20 the capability and the time to carry out the timber
21 management planning process. Both those additional
22 issues, that's what they are?

23 A. Yes, it's related to cost and
24 reasonableness as well.

25 Q. Yes, okay. And you make the

1 statement in your response to part (a) of Interrogatory
2 Question 20 that -- and this is the second sentence in
3 the response to the question of:

4 "Where is the level of detail that the
5 Coalition is proposing is not
6 appropriate?"

7 And you make the statement:

8 "The timber management planning process
9 must be reasonable in terms of time and
10 cost."

11 Correct?

12 A. Yes.

13 Q. And you indicate that:

14 "The proposals by the Coalition may be
15 desirable..."

16 A. Yes.

17 Q. "...but it's possible to analyze
18 alternatives and select the preferred one
19 without quantitative assessments...", et

20 cetera, et cetera.

21 A. Yes.

22 Q. Now, if time and cost were not a
23 factor - let's put that aside for the time being, I'm
24 not saying we're going to put that aside forever - but
25 let's just put it aside for the time being.

1 Would you agree that quantitative
2 assessments, habitat supply analysis, adapative
3 management would be a valuable improvement from an
4 environmental planning perspective to the current
5 timber management planning process?

6 In other words, if we can bring this
7 forward and give this to the public in a reasonable
8 fashion in terms of time and cost, would that be of
9 valuable assistance in terms of environmental planning?

10 A. Yes, those sorts of analyses would
11 certainly improve the process.

12 Q. All right. So your concern with the
13 Coalition's proposals is not whether they are
14 consistent with environmental planning in the province
15 but rather whether they're practical?

16 A. Yes, I would characterize it that
17 way.

18 Q. Now, what analysis have you or your
19 staff or anyone that's contracted wherever, have you
20 undertaken of the Coalition's proposals to come to the
21 conclusion that they are not reasonable in terms of
22 time and cost?

23 A. We have not done a specific analysis.
24 I would add that in the case of a Class EA we tend to
25 try to rely on the proponent as well to let us know

1 what is reasonable for them to undertake. It's
2 certainly a consideration that MOE has.

3 Q. Would you agree that in determining
4 what is reasonable in terms of time and cost as a
5 Ministry that you would look at the scale of impacts
6 that are involved; how big of an impact, how
7 significant the impacts are that might be involved?

8 A. It may be a consideration, yes.

9 Q. What are other considerations that
10 you as a Ministry would use, other than relying on the
11 proponent, that you would use to determine whether or
12 not the time and cost involved with a specific proposal
13 is reasonable?

14 A. I think an important thing which the
15 Ministry would consider is to look at what's been
16 proposed and whether or not it's capable of achieving
17 the basic things that you want to achieve in the
18 process.

19 Q. All right. Now, I take it one of the
20 reasons that you're concerned with habitat supply
21 analysis is that it's too costly and time consuming to
22 be applied in timber management planning?

23 A. I don't think that I'm in a position
24 to judge exactly how time consuming or costly it would
25 be. As I've said in the response to the interrogatory,

1 that I guess the main point is that it isn't essential
2 to look at alternatives and make decisions.

3 Q. All right. Now, are you familiar
4 with the evidence of Mr. Patch and Dr. Page in the
5 Coalition's panel 7 evidence where they undertook a
6 marten habitat supply analysis for the entire Red Lake
7 timber management plan for the planning horizon in
8 excess of 80 years within two hours--

9 A. No.

10 Q. --during cross-examination?

11 A. No, I'm not.

12 Q. All right. Now, accept that those
13 facts are correct, is it unreasonable to expect such a
14 level of effort, four hours of professional time, to
15 evaluate the impacts of proposed timber management
16 activities on a major furbearer like marten over an
17 area the size of the Red Lake timber management
18 planning area?

19 A. No, I wouldn't say it's unreasonable.

20 Q. In response to part (b) of Question
21 20 dealing with the scope of alternatives that need to
22 be considered you make reference to the Coalition's
23 term and condition 10 sub (iv) which is found on page 2
24 of Exhibit 1637.

25 MR. MARTEL: Run that one by me again,

1 Mr. Hanna.

2 MR. HANNA: Certainly.

3 MR. MARTEL: All of the locations -- I'm
4 just trying to locate.

5 MR. HANNA: Exhibit 1637, Mr. Martel, the
6 term and condition 10 sub (iv) is referred to in
7 interrogatory response Question 20 sub (b).

8 MADAM CHAIR: Mr. Pascoe, why are we
9 having such a problem with this?

10 MR. PASCOE: You don't have the latest
11 T&Cs.

12 ---Discussion off the record

13 MR. MARTEL: This is your terms and
14 conditions, Mr. Hanna?

15 MR. HANNA: All right.

16 MR. MARTEL: I've found them. Now, if
17 you will just give me the number and --

18 MR. HANNA: Page 2, Arabic 2.

19 MR. MARTEL: Number...?

20 MR. HANNA: 10, sub (iv).

21 MR. MARTEL: Here we are.

22 MR. HANNA: Q. Now, Ms. Dahl the
23 interrogatory question was to provide specific
24 reference as to the scope of alternatives being
25 proposed by the Coalition that MOE does not accept as

1 necessary to analyse alternatives, and you specifically
2 made reference to this term and condition.

3 Now, can you just explain to me what it
4 is about that section of the term and condition that
5 suggests to you that there's alternatives there that
6 shouldn't be evaluated?

7 MS. DAHL: A. I think the concern was
8 with the phrase 'each alternative resource production
9 possibility'.

10 Q. Yes.

11 A. It's just my interpretation I think
12 that that tends to indicate a large scope of resource
13 production possibilities as alternatives and that was
14 what the reference was to.

15 Q. All right. Now, let's change the
16 words there, let's see if we can make it a little bit
17 more agreeable to you.

18 And would you agree that there should be
19 an evaluation of the environmental tradeoffs associated
20 with each alternative forest cover that may result from
21 feasible timber management activities for the forest
22 management unit?

23 A. I think you would have to look at the
24 environmental tradeoffs associated with each
25 alternative that was put forward in the plan.

1 I'm not sure if you're referring to each
2 alternative forest cover that may result from those
3 alternatives or each of the alternatives themselves.

4 I would agree that you have to look at
5 tradeoffs associated with each alternative that was
6 deemed to be appropriate for consideration in that
7 plan.

8 Q. And when you say each alternative,
9 you're referring to what you've drawn in 2217, your
10 hand sketch there?

11 A. Yes, alternative areas for
12 operations, alternatives for access roads, whatever
13 alternatives were being put forward in the plan.

14 Q. And you'll agree that each one of
15 those alternatives have implications beneath the forest
16 cover?

17 A. Yes, I would think they do.

18 Q. And there may be some issues that are
19 only apparent, some environmental issues that are only
20 apparent when you look at the forest cover as a whole
21 as opposed to discrete units?

22 A. That could be a possibility.

23 Q. Based upon your understanding is it a
24 high possibility, in fact, is it in fact the case with
25 timber management?

1 A. I think it may be the case, but I
2 don't think I can give a definitive answer.

3 Q. Now, given what you've told me there
4 are different combinations of those alternatives that
5 have different implications in terms of the forest
6 cover, and I think you've indicated to me that those
7 alternatives should be looked at in terms of their
8 environmental tradeoffs?

9 A. I think, as I explained in my
10 evidence yesterday, they should be looked at in terms
11 of their impacts over the five-year period for which
12 the planning is taking place, yes.

13 Q. Now, part (c) of the interrogatory
14 asked:

15 "Please provide specific references to
16 the evidence presented by the Coalition
17 stating the specific level of detail
18 required that..."

19 And the comment:

20 "...that interrogatory responds to the
21 Ministry's concern about the level of
22 detail the Coalition is recommending to
23 the Board."

24 And you make reference in the response
25 there to a number of terms and conditions, and I would

1 just like to turn to one, and that is term and
2 condition 13.

3 And maybe this is just the same wording
4 that you had a problem with in 10 and if it is, then we
5 can just deal with this easily.

6 But can you just indicate to me those
7 specific elements of this term and condition, term and
8 condition 13 that you find the detail being excessive?

9 A. I think that in evaluating your
10 alternatives it isn't essential to use an explicit
11 evaluation method to set out quantitatively the
12 magnitude, intensity, frequency duration of all
13 positive and negative predicted changes and so on in
14 order to make a decision between those alternatives.

15 Q. All right. And I think you've talked
16 about that in your evidence and the fact that EA tries
17 to work through a scoping process of trying to go from
18 a broad level of detail to a more refined level of
19 detail as you narrow in on the alternatives you're
20 working on; is that correct?

21 A. Yes, I did say that.

22 Q. And if we were to say then that
23 the -- and there is nothing in here that says that you
24 have to deal with things that are of marginal
25 importance - or perhaps that's the wording you would

1 prefer to see - that those impacts that are of critical
2 importance in terms of making the decision should be
3 dealt with in this way, but things that are not of
4 major importance should not be dealt with in that way.
5 Is that what you're saying to me?

6 A. No, that's not what I'm saying.

7 Q. Okay. Are you saying then that if we
8 have a major impact that it should not be dealt with,
9 it would not be necessary to deal with it in terms of
10 it's magnitude, intensity, frequency and duration?

11 A. You may wish to look at it in that
12 way depending on what the impact is and what the
13 desires of the planning team and the local people are,
14 how detailed they wish to look at the impact. But,
15 again, I don't think it's essential to look at them at
16 that level of detail in every case.

17 Q. And, again, the reason you're of this
18 view is, ideally you would like to have that
19 information but practically there may be limitations to
20 it. It's from that point of view that you're coming
21 from, not from the point of view of good environmental
22 planning per se?

23 A. I would have to go back again to the
24 interrogatory response where I don't think it's
25 essential to do that to make a decision.

1 It may provide more clarity when you are
2 making that decision, but that's not to say that you
3 couldn't make tradeoffs and decide between alternatives
4 unless you looked at an impact at that level of detail.

5 Q. All right. Now, is it your view that
6 it's good environmental planning to consider indirect
7 in addition to direct impacts of an undertaking?

8 A. If there's an indirect impact
9 expected to occur and it is identified as something
10 that is of a concern in the area, then it should be
11 considered, yes.

12 Q. Is it good environmental planning to
13 consider cumulative impacts when evaluating a proposal?

14 A. Ideally I think you would want to
15 look at cumulative impacts, but cumulative impacts are
16 a very difficult area to deal with and it's not always
17 possible to determine what they may be.

18 If you have an idea of what they may be
19 and it's something that's of a concern then, again, it
20 should also be taken into consideration.

21 Q. Now, turning to interrogatory
22 Question 23, part (d), and this is dealing with --

23 MADAM CHAIR: We don't have a part (d) on
24 23.

25 MR. HANNA: I'm sorry, part (b), Madam

1 Chair.

2 MADAM CHAIR: (b).

3 MR. HANNA: Yes.

4 Q. You list in response to the
5 interrogatory a series of steps in the planning process
6 that should be canvassed at various stages in the
7 overall planning sequence; is that correct?

8 MS. DAHL: A. Yes.

9 Q. And part (b) deals with the methods
10 for assessing alternatives and you indicate that this
11 should be canvassed in the parent class EA; correct?

12 A. Yes.

13 Q. Okay. Now, by methods for assessing
14 alternatives do you mean the method to be employed to
15 evaluate alternatives; is that what you mean by that?

16 A. I'm referring to the general process
17 which will be followed for evaluating the alternatives.

18 Q. Yes, okay. So we're talking about an
19 evaluation method of some sort or another, a process
20 for evaluating alternatives.

21 A. Yes.

22 Q. Now, the guidelines that you've
23 included in your reference book Exhibit 2200B, Tab 12,
24 discuss the use of evaluation methods fairly
25 extensively; is that correct?

1 A. There is a section dealing with the
2 evaluation methods. I'm not sure I would say it's
3 extensive in the document.

4 Q. Okay. On page 7 of the guidelines
5 under the heading Features of Environmental Assessment,
6 it is stated in the first sentence:

7 "There are five features which are key to
8 successful planning and approval under
9 the Act."

10 And the fourth feature is systematically
11 evaluate net environmental effects is a key requirement
12 for successful planning.

13 A. Yes.

14 Q. Now, do you agree with this
15 statement?

16 A. Yes, I agree that it's important to
17 evaluate effects in a manner which is systemic and
18 which can be understood or followed.

19 Q. Now, would you agree that the use of
20 quantitative prediction and evaluation methods greatly
21 facilitate the systemic evaluation of alternatives?

22 A. I think in some cases quantitative
23 evaluation can assist in achieving that, but there are
24 also problems associated with quantitative assessment
25 and it's not always effective. There are often values

1 which you can't attach a quantitative value to.

2 Q. Can you give me an example?

3 A. Things like experiencing wilderness
4 or solitude, those sorts of things which society
5 values.

6 Q. And how do you see presenting the
7 information necessary to decision-makers on those
8 issues so that decisions can be reached so the public
9 can understand it?

10 For a specific example let's take your
11 Exhibit 2217, your alternative C that you've drawn on,
12 which I believe is your contingency area, and it has an
13 impact on wilderness values.

14 What information and how would you deal
15 with that in a formal evaluation system that's
16 systemic?

17 A. If an impact on wilderness values was
18 identified then it would be something that would have
19 to be discussed when you're evaluating that alternative
20 with, in this case, the planning team and the local
21 citizens committee.

22 If it's a significant concern, then I
23 believe it would be documented in the advantages and
24 disadvantages associated with operating in that area
25 and...

1 Q. And if I was to say to you, Ms. Dahl,
2 that there are methods that have been used in other
3 jurisdictions to quantitatively value the public's
4 value that they place on wilderness, accepting that for
5 the time being, would that be of assistance in allowing
6 people to understand the relative tradeoffs among
7 alternatives and different factors?

8 A. I would have to say that I'm not
9 certain that it would. I think in my opinion those
10 values vary between individuals.

11 Q. Absolutely, I don't disagree with
12 that. That wasn't my point.

13 A. If it was possible to assign a
14 quantitative value to that and all of your affected
15 public were in agreement with that, it would make it
16 clearer in documenting but, again, I don't think it's
17 essential.

18 Q. Now, turning to page A of the
19 guidelines under section 2.4 systematically evaluate
20 net environmental effects, and they both say
21 explicitly, evaluate alternatives in light of their
22 advantages and disadvantages developed through a net
23 effects analysis.

24 Why is it necessary for this evaluation
25 to be explicit?

1 A. It's necessary for the document to be
2 explicit so that you can understand, so that someone
3 following the document can understand how the decision
4 was made. In other words, it's not enough to say we
5 evaluated the alternatives and we selected this one
6 without providing any information on what you
7 considered in your evaluation and what the results of
8 that were.

9 Q. So the more explicit you can be the
10 better because it gives people a better understanding
11 of the basis for the decision?

12 A. Yes.

13 Q. Do formal evaluation methods provide
14 an explicit basis for evaluating alternatives?

15 A. I would say they can, yes.

16 Q. Now, I'm going to read you what I'm
17 going to suggest to you are four basic requirements of
18 any evaluation process and see if you agree with it.

19 There are four basic requirements of any
20 evaluation process, first selecting criteria for
21 identifying the things that the decision depends on.

22 MADAM CHAIR: Excuse me, Mr. Hanna. Are
23 you reading from the interim guidelines?

24 MR. HANNA: No, Madam Chair, I'm reading
25 from a report published by the EA Branch of the

1 Ministry of the Environment entitled Evaluation Methods
2 in Environmental Assessment.

3 MS. SEABORN: Could I have the date of
4 that document?

5 MR. HANNA: Yes. It's August, 1990.

6 Q. By the way, you're familiar with this
7 report?

8 MS. DAHL: A. Yes, I've seen it.

9 Q. You attended some seminars that were
10 presented associated with this work; is that correct?

11 A. No, I did not.

12 MS. SEABORN: Who's the author of that
13 report?

14 MR. HANNA: The authors are DHB Research
15 and Consulting, Log Plan and Lawrence Macdonald and
16 Associates.

17 MS. SEABORN: Thank you.

18 MR. HANNA: Q. Selecting criteria by
19 identifying the things that decisions depend on,
20 predicting impacts of each alternative in terms of each
21 criterion and rating of these impacts in magnitude,
22 comparing the impacts, including deciding which impacts
23 are more or less tolerable to the affected parties,
24 applying an evaluation method which combines weights
25 and rates for each of the criteria to provide an

1 overall ordering of the alternatives.

2 Now, are those four basic requirements of
3 any evaluation process in your opinion?

4 MS. DAHL: A. I think that, yes, those
5 are important to an evaluation process.

6 Q. Given your knowledge of that report,
7 would you say that's an authoritative text on the
8 subject of evaluation methods?

9 A. It is one source that discusses
10 evaluation methods, yes.

11 Q. All right. Now, back to where we
12 started on this and that was your answer to Question 23
13 and the fact that we're looking for, in the parent
14 Class EA, a specification of the methods for evaluating
15 alternatives.

16 What method for assessing alternatives --
17 where is there a method for assessing alternatives,
18 evaluating alternatives and where is there a rationale
19 for the selection of the evaluation method?

20 A. It's my understanding that through
21 both the Class EA and the evidence that has come before
22 the Board there has been discussion of how alternatives
23 will be considered and looked at.

24 Offhand I don't think I can point to any
25 specific rationale, but I understand that there has

1 been discussion and indeed the presentation I made
2 yesterday was some discussion on how alternatives could
3 be evaluated.

4 Q. I'll put to you that there are 20
5 different formal evaluation methods set out in the
6 report that I referred you to, Environmental Methods in
7 Environmental Assessment, and I would like you to tell
8 me which of those evaluation methods, if any, are
9 proposed in the Class EA or proposed in your evidence
10 to date to evaluate alternatives?

11 MS. SEABORN: Well, Mr. Hanna, first you
12 might ask the witness whether she's familiar with the
13 20 evaluation reports. She said she is generally
14 familiar with the study but she hasn't been provided a
15 copy in advance of your cross-examination and I'm not
16 sure this is the kind of question she could answer
17 right now.

18 We could look into it for you, if that's
19 helpful, or Ms. Dahl, or we could spend some time and
20 Ms. Dahl could have an opportunity to review the
21 report.

22 MR. HANNA: Well, Madam Chair, what I'll
23 do -- I think it's quite simple, the evaluation methods
24 are set out in the table of contents, there's a
25 one-page reference to them. I will provide a copy to

1 Ms. Dahl and perhaps I'll come back to it after the
2 break.

3 Q. Now, would you agree with me that in
4 the Red Lake plan we cannot find an explicit systemic
5 application of a formal evaluation method to evaluate
6 the alternatives in that plan?

7 MS. DAHL: A. I did not see an explicit
8 evaluation method in that plan, however, I did not
9 carefully go through the entire plan either, okay.

10 Q. Okay. Now, in response to
11 Interrogatory Question 24, part (c) it deals further
12 with the matter of presenting advantages,
13 disadvantages, net effects of silvicultural packages
14 and suggests that:

15 "These should be presented in an
16 integrated and systemic fashion within
17 the spacial context of the forest
18 management unit and the temporal
19 framework of the planning horizon and the
20 duration of the environmental effects of
21 proposed activities."

22 And in part (c) you say:

23 "No, MOE's view as to the level of detail
24 required to examine the advantages and
25 disadvantages as set out in the example

1 provided in the evidence."

2 And I believe that example is found on
3 pages 8 and 9 of your witness statement; is that
4 correct?

5 A. Yes.

6 Q. And I take it this is the information
7 that you would see providing to the public in order
8 that they can trace and understand and meaningfully
9 comment on the alternatives that have been evaluated in
10 the timber management plan?

11 A. This is the level of detail that
12 we're suggesting be proposed -- put forward at the
13 first information centre in relation to these
14 alternatives which I discussed in my proposal yesterday.

15 I expect that there would also be --
16 well, the purpose of setting them out is to generate
17 discussion as well, and...

18 Q. Okay. Now, accepting that this is
19 presented at the first information centre, does it end
20 there, or where would I look for this information in
21 the final timber management plan?

22 For example, where would I look for
23 economic impact on industry, communities and
24 individuals in the timber management plan, the final
25 level where we have gone to all the detail, we have now

1 honed in on the specific alternatives and we want to
2 look at it in detail.

3 This fairly general and I accept what
4 you're saying. Where in the timber management plan do
5 I find the detailed analysis which you're saying we
6 should have?

7 A. I guess first I'm not suggesting in
8 this example that these are the exact items that would
9 be presented, this is just the level of detail.
10 Whatever the items are will depend on what the local
11 advantages and disadvantages are.

12 Q. I accept that. For purposes of my
13 question let's accept that economic impact on industry,
14 communities and individuals is an important issue with
15 the preferred alternative and the alternative methods
16 been evaluated that have led up to the draft timber
17 management plan.

18 And you'll agree that at that point you
19 want more detail on these subjects then you'll have in
20 this first open house?

21 A. I think the way that I explained it
22 yesterday is that when you have a broader range of
23 alternatives you look at them in less detail and as you
24 narrow down to more alternatives, then you would look
25 at them in greater detail in order to choose between

1 them.

2 But I think what we're suggesting here is
3 that there would be a choice made between these
4 alternatives. So I'm not sure that there would be any,
5 as you call them, subalternatives that would come out
6 of this particular area that would then require more
7 detailed analysis in order to choose the preferred one.

8 Q. Okay.

9 MR. MARTEL: Can we stop for a moment. I
10 want to get a clarification if I could, Mr. Hanna.

11 Let us look at those 2 and 3, all right,
12 I'm just trying to get something clarified in my own
13 mind. Those are just two alternative areas we might
14 operate in.

15 Are you saying that for each item you
16 would do a -- and let's look at (d), the one you're
17 looking at, an economic impact analysis on the
18 industry, the communities, the individuals for (a), (b)
19 and let's say there was a (c), we throw that in, and
20 then you would do the same with a total analysis of the
21 regeneration of jack spruce and take whichever ones
22 want, and I think as I look at those, and I understand
23 the concerns that are being expressed - because
24 obviously this doesn't satisfy you - and what I'm
25 trying for clarification from you is a thorough

1 analysis, economic or whatever it is, social impacts in
2 some level of detail that you're suggesting is
3 necessary.

4 I just wonder how many tonnes of material
5 we're going to need to do all of that. I'm not saying
6 that to be facetious either, I'm just trying to get at
7 the amount of detail that you want, because that's in
8 essence what you've been driving at all morning.

9 MR. HANNA: Yes.

10 MR. MARTEL: And I'm having difficulty
11 getting my head around the amount of analysis you want
12 on each item. And when I read your terms and your
13 conditions they're asking for such specification that
14 I'm not sure how that's possible.

15 And I guess what I'm asking you, tell me
16 how much you want so I'll have an understanding what it
17 is, if we ordered the Ministry to do it, what it really
18 entailed.

19 MR. HANNA: Well, Mr. Martel, I think
20 that's a really important question and I certainly have
21 every intention of addressing that in a lot of detail
22 in argument, but I'll try and deal with it right now--

23 MR. MARTEL: Yes, just get a better
24 understanding of what you're after.

25 MR. HANNA: --in a very simple way. Our

1 view is that it's very difficult for this Board to
2 establish over the area of the undertaking what is an
3 appropriate level of detail in every case and we will
4 not be coming forward to you and saying that you should
5 have this level of detail in every particular case.

6 What we will be saying to you - and this
7 is the difficulty that we've been grappling with - is
8 how do you provide sufficient guidance with the power
9 that you're given in making a decision to the
10 individual authors of the plan so that they have -- so
11 that there's some direction given but it isn't totally
12 unfettered in terms of level of detail.

13 And I will give you an example. It may
14 be if we were doing the Red Lake timber management plan
15 and we were having a major impact that you've heard on
16 the local community as a result of that plan, that
17 perhaps economic impact and community impacts may be a
18 really essential issue in that particular case and you
19 may want to look at a level of analysis more so than
20 you may want to look at in a plan in another area where
21 there aren't the same level of community impacts
22 associated with it.

23 It will vary from case to case. There's
24 no -- I can't give you that is the level of detail that
25 is required. And I think Ms. Dahl has given us in her

1 evidence is that the level of detail is an important
2 consideration in the design of the plan.

3 And I see the local citizens committee
4 playing a very key role there in deciding what is the
5 appropriate level of detail. The concern that I have
6 and the Coalition has is that we want to make sure that
7 there's sufficient latitude in terms of the factors
8 that might be considered in particular circumstances so
9 that if there's something very significant that needs
10 to be considered that that isn't going to be ruled out
11 de facto because it doesn't fall within the narrow
12 definition of the planning process or the alternatives
13 being considered.

14 I think the rule here is quite simple,
15 and the rule as far as I see it is this: You have to
16 look at the magnitude of the impact that you're dealing
17 with. If you're dealing with large impacts, you invest
18 more time in them; if you're dealing with small
19 impacts, you deal with them in a relatively
20 straightforward and - I won't say profunctory way - but
21 certainly you aren't going to invest a heck of a lot of
22 time and effort into something that's fairly
23 self-evident.

24 Those decisions though are extremely
25 difficult to determine at a generic class environmental

1 assessment level. That's the position of the
2 Coalition.

3 What we're trying to do is to ensure that
4 the doors are open so that those decisions can be made
5 on a case by case basis and that whatever direction
6 this Board can give in terms of: This is the basis
7 upon which, these are the criteria you should use in
8 terms of deciding on the level of detail, whatever
9 those might be, and I will be talking to you about
10 that.

11 MR. MARTEL: Yes. But when you read 13
12 just in its starkness.

13 MR. HANNA: Yes.

14 MR. MARTEL: And you read it and you say,
15 at all levels of planning, all levels of planning.

16 MR. HANNA: Yes.

17 MR. MARTEL: "The evaluation of
18 alternative production possibilities
19 shall be performed using an explicit
20 system that sets out quantitatively the
21 magnitude, the intensity, the frequency,
22 the duration of all positive and negative
23 predicted changes to and the significance
24 assigned to each such that an unambiguous
25 ranking of alternatives can be

1 determined."

2 If I read that, Mr. Hanna, correctly, I
3 would be petrified to even try to take all that in and
4 take that at its face value when I listen to what
5 you're asking for, but I'm reading your term and
6 condition--

7 MR. HANNA: Mm-hmm.

8 MR. MARTEL: --it's quite different. I
9 mean, it seems as though you're asking for the universe
10 there. And, again, I'm not trying to be facetious, but
11 I'm just looking at that and what it really means, if
12 somebody had to follow that with every word that's
13 there as opposed to what you simply said a few moments
14 ago, we want to have a handle at looking at those
15 things that we need more information for and I look at
16 this, that doesn't sound the same.

17 MR. HANNA: Mr. Martel, perhaps -- and
18 this is --

19 MR. MARTEL: And I think that is my
20 concern.

21 MR. HANNA: I hear clearly and it's
22 certainly useful to be aware of that. The operative
23 phrase in that term and condition is an unambiguous
24 ranking of alternatives, and the point is I may have a
25 large range of impacts but there may be only one or two

1 that are going to determine the choice.

2 Now, I may simply just say: Well,
3 there's all these, I may just refer to the class EA, I
4 may refer to some document that the Ministry developed,
5 say: There is all these impacts that are associated
6 with it but, in this particular case, there are only
7 two that are going to be determining what the outcome
8 is in terms of the preferred alternative.

9 Now, in order to get an unambiguous
10 ranking I only have to deal with those two impacts.

11 MR. MARTEL: But can you see my
12 difficulty then, Mr. Hanna when I hear what you're
13 saying to me now and I read T&C 13 which you're asking
14 the Board to accept.

15 MR. HANNA: Yes.

16 MR. MARTEL: And, as I say, it seems to
17 cover the universe and that is what worries me, that
18 I'm not sure if one were to take that at its face value
19 the way it's written that one could achieve that level
20 of detail using all your own adject -- you know, the
21 only words, the magnitude, the intensity, the
22 frequency, the duration.

23 Well, I don't know how long one -- how
24 one measures all of that to the specification that you
25 have in your T&C and that's why I asked you to give me

1 some clarification what it is you're looking for, so I
2 could tell you what I think -- I know what I'm thinking
3 and I think the difficulty - and I'm not trying to put
4 words into Ms. Dahl's mouth in trying to answer your
5 questions - based on the latitude or the magnitude, if
6 I can use the word, of the T&C itself.

7 MR. HANNA: Well, I would simply say,
8 again, that certainly looking at it from the point of
9 view of having to comply with that, to comply with that
10 term and condition means you have to have an
11 unambiguous ranking of alternatives and that you have
12 to obtain the level of detail, the information
13 necessary to arrive at an unambiguous ranking of
14 alternatives, and that's really the important part.

15 Now, the fact that we talk about
16 magnitude, intensity, frequency and duration are simply
17 the components of an impact that one might look at in
18 terms of arriving at that unambiguous ranking. That's
19 the thrust of it.

20 But I certainly -- I think at this point
21 it's probably most expedient -- I very much appreciate
22 the Board providing me that direction. That will
23 certainly be taken into account and we will try and
24 deal with that in whatever way that we can.

25 But I think the important point is, from

1 the Coalition's point of view is that, as you know, the
2 Coalition is made up of people that have very direct
3 vested interest not only in angling and hunting and
4 remote tourism but in the communities and in the forest
5 industry and its not our intent to grind that to a
6 halt.

7 And I think certainly we are looking for
8 something that's reasonable, that's consistent with the
9 Environmental Assessment Act.

10 MR. MARTEL: Thank you.

11 MR. HANNA: Q. All right. Now, we're
12 back to the alternatives that you -- or the evaluation
13 of alternatives that you have on page 8 and 9 of the
14 witness statement.

15 And, as I understand it, in your response
16 to the interrogatory you're saying that it is not
17 necessary to present the option or alternatives in a
18 meaningful way to the public, to have the advantages,
19 disadvantages, net effects and rationales for
20 alternative sets of silvicultural packages; is that
21 correct?

22 MS. SEABORN: Which interrogatory
23 response are you referring to, Mr. Hanna?

24 MR. HANNA: 24(c).

25 MS. DAHL: I think that the interrogatory

1 response clearly says that what we have presented in
2 the evidence is the level of detail that we're
3 suggesting is appropriate for consideration of these
4 alternatives, but I don't believe that silvicultural
5 packages are explicitly contemplated in these
6 alternatives at this stage.

7 I think Mr. Bax spoke to the
8 silvicultural packages yesterday.

9 MR. HANNA: Q. Well, if they aren't,
10 where are they, or are they? What is contemplated in
11 your alternatives then, just simply harvest
12 irrespective of regeneration, tending, access?

13 MS. DAHL: A. No. Those would certainly
14 be considerations when you're looking at what your
15 advantages and disadvantages of harvesting in those
16 different areas are. I mean, you have to --

17 Q. Just you understand, that's what I
18 mean by silvicultural package.

19 MR. BAX: A. If I may say, Madam
20 Chairman, I mean the silvicultural package includes
21 harvest. You're not separating that?

22 Q. Yes. No, absolutely.

23 A. We are not either. I mean, that was
24 clear in my evidence, that it's one in the same.

25 MS. DAHL: A. I think those are matters

1 that would have to be considered when you're looking at
2 these alternatives, yes, but what we're suggesting is
3 that at that first information centre the level of
4 detail set out in the witness statement is appropriate
5 and, again, if there are concerns on specific issues or
6 there's difficulty in choosing between the
7 alternatives, it may require more detail on those
8 issues, a more detailed analysis.

9 That would have to be decided by the
10 planning team, the local citizens committee, you know,
11 based on the public input that they're receiving at
12 that information centre.

13 Q. All right. Now, referring back to
14 term and condition 13 of the discussion Mr. Martel and
15 I had, would you agree that in the prediction of
16 impacts it is important to report the relative
17 magnitude of the impacts; if not the absolute
18 magnitude?

19 A. I think where you can predict what
20 the magnitude would be it may be, I guess, documented
21 in terms of your advantages and disadvantages.

22 Q. And would you agree that the
23 prediction of impacts should include an estimation of
24 the duration of the impacts?

25 A. If duration is a factor that relates

1 to the advantage or disadvantage, then it would be part
2 of the description of that advantage or disadvantage.

3 Q. Can you give my an example of any the
4 criteria, or I'm not sure what you would call these in
5 your example on pages 8 and 9 for which duration would
6 not be an important consideration?

7 A. I think cost of access may be
8 something where duration is not an explicit component
9 of that.

10 Q. Maintenance costs associated with the
11 road over the long term, those are not important?

12 A. I'm not certain that the maintenance
13 costs would be explicitly set out as part of the access
14 costs. I don't think I can comment on exactly how that
15 is determined.

16 Q. Mr. Bax, in your experience, can
17 maintenance cost with the access road be a
18 consideration in terms of preferred access routes?

19 MR. BAX: A. Yes, it can be but not a
20 significant part. I mean, the building costs are
21 absolutely the most significant.

22 Q. But it can be a factor in determining
23 between alternatives, which of the preferred
24 alternatives?

25 A. It could be, yes.

1 Q. Are there any others, Ms. Dahl?

2 MS. DAHL: A. Well, if you're looking at
3 your advantages and something is not going to be
4 disturbed, then I don't think that duration is
5 necessarily an explicit part of that advantage.

6 Q. What if one of the advantages was
7 that a heron rookery would not be disturbed but that
8 heron rookery has a life expectancy of five years and
9 will move by itself in five years; is that not an
10 important consideration?

11 A. I think that would be part of
12 determining your advantages because when you consider
13 what happens if you don't operate there, it may be that
14 they will move.

15 Q. How long that advantage is likely to
16 be realized, an undisturbed heronry?

17 A. It could be, but it may not
18 necessarily. I mean, the duration of that may not
19 necessarily be important to your decision between
20 alternatives. It's going to depend on the specific
21 situation and the specific impacts that you encounter.

22 Q. All right. Now, I would like to look
23 specifically at the example you've provided here as
24 representative of what you would see being provided at
25 the first public meeting.

1 And, first of all, are you suggesting
2 that the evaluation presented here in terms of the
3 alternatives satisfies the basic requirements of a
4 formal evaluation process?

5 A. Well, I'm not suggesting that you
6 would develop these through what you would call a
7 formal evaluation process.

8 Q. What do you mean develop them?

9 A. Well, determine what the advantages
10 and disadvantages are.

11 Q. How do you mean determine, I don't
12 follow you here, sorry, what do you mean by determine?
13 I always knew evaluation system as a way to compare
14 alternatives not to determine what they are but to
15 compare them once you've got the advantages and
16 disadvantages.

17 A. Well, I think you can -- you evaluate
18 the alternatives to determine what your advantages and
19 disadvantages are and then compare the alternatives.

20 Q. Right. And formal evaluation methods
21 are a process of being able to compare alternatives and
22 to get a ranking of alternatives; correct?

23 A. If you wish to rank alternatives,
24 yes. They are not always ranked in all cases.

25 Q. Okay. What is done in other cases?

1 A. I believe in some cases you would, if
2 you have an obvious preferred alternative, then you
3 would select that alternative. It's not necessary to
4 rank the other alternatives in order of preference.

5 Q. Okay. So you rank the one
6 alternative relative to all the others, but you haven't
7 worried about the others?

8 A. I suppose you could characterize it
9 that way.

10 Q. And are you suggesting that the
11 information you provided here satisfies the basic
12 requirements of a formal evaluation process?

13 A. If you're referring to the four
14 requirements that you read--

15 Q. Yes.

16 A. --from the document of formal
17 evaluation, it may not, it depends how they were
18 determined. But in terms of the Ministry's -- I guess
19 as we explained yesterday on how you would determine
20 your advantages and disadvantages, if you look at the
21 effects on the environment of proceeding, you compare
22 that to what the effects of not proceeding would be and
23 determine your advantages and disadvantages, then we
24 would be satisfied that that was acceptable.

25 Q. The fourth component of a formal

1 evaluation process is to apply an evaluation method
2 which combines weights and rates for each of the
3 criteria to provide an ordering of the alternatives.

4 Now, I would like you to indicate to me
5 where I would find weights and rates in the evaluation
6 that you've put forward here in this example?

7 A. We're not suggesting that you have to
8 apply weights or rates in this process. I think that
9 would be up to the planning team on exactly how they're
10 going to carry it out.

11 Q. To carry out--

12 A. Their evaluation and whether they
13 specifically want to weight and rate each alternative.

14 We're not suggesting here that you must
15 use a formal evaluation method as documented in the
16 literature.

17 I mean, the Ministry doesn't require
18 formal evaluation methods to be used. It's acceptable
19 if you document how you made your decision, what you
20 considered so that it's understandable.

21 Q. Okay. And the reason you're
22 presenting this information in the first open house is
23 to make the information more understandable; is that
24 correct? Why are we going through this process?

25 A. Not only to make the information more

1 understandable, it's to make the decision
2 understandable.

3 Q. I agree.

4 MADAM CHAIR: Excuse me, I thought it
5 wasn't a decision yet. I thought the idea was that
6 this information is being given to the public because
7 at this point in the process what the parties have
8 suggested to the Board is that you would have had the
9 local planning team and local citizens committee
10 working together, but there will still be maybe better
11 alternatives that come up after this first meeting.

12 And so I guess the Board is confused a
13 bit by the timing, because if you take all the formal
14 evaluation methods and you put weightings and ratings
15 and you make this -- really, by doing that you will
16 have made a decision essentially on showing which is
17 the best alternative and the public will feel shut out
18 in any event.

19 MR. HANNA: Madam Chair -- sorry, go
20 ahead.

21 MS. DAHL: Perhaps I could clarify. No,
22 the final decision would not be made at this stage.
23 What I mean when I say it would make the decision more
24 understandable is, at the end of the day when the
25 decision is made, having done all this, there will be

1 some understanding of how you got to where you did, how
2 that decision was made.

3 MR. HANNA: Madam Chair, just so you
4 understand where the Coalition is coming from, we
5 concur wholeheartedly with what you said, we do not
6 want to see a preferred alternative presented at this
7 stage and I agree with you, if there were weights and
8 rates shown de facto you will have shown a preferred
9 alternative.

10 The information should be presented, in
11 our view, in this type of analysis should be what's
12 termed the rates; in other words, here are the impacts
13 that are associated with this. We aren't going to say
14 which is better or worse, but here are the impacts and
15 the impacts should be reflected in terms of magnitude,
16 intensity, frequency and duration.

17 The difficulty I have - and this is the
18 whole point of this line of questioning - as a member
19 of the public coming in looking at this range of
20 information, how would I as an individual trying to
21 provide public input to the Ministry in terms of my
22 preferences, which would be my own personal weights
23 that I think heronries are more important than a
24 community impact or vice versa.

25 Without having some assessment of what

1 the relative magnitude of the impacts are, how long the
2 impacts are likely to persist, it's very, very
3 difficult for me to provide a meaningful assessment of
4 which of the alternatives that I would prefer, and
5 that's the point of this discussion.

6 The other point of the discussion is that
7 when you come to the end of the day the draft timber
8 management plan, whatever it is; in other words, for
9 the public to understand how their input has been used,
10 they will want to see what the final weights are that
11 are assigned to these various criteria and that some
12 evaluation process of this nature is essential in the
13 timber management plan for the very reasons that Ms.
14 Dahl has just stated, that for the public to understand
15 how the decision has been reached it's essential that
16 that information is provided to the public.

17 And I submit to the Board right now this
18 information is not presented in the timber management
19 plan and is not available in such a way that that can
20 be traced.

21 Q. Now, Ms. Dahl, do you disagree with
22 that basic premise in terms of how you see the process
23 unfolding?

24 MS. DAHL: A. No. I think we agree that
25 you have to show how the decisions are made, present

1 the information to the public so they have an
2 opportunity to have input, comment and discuss things
3 with the planning team before these decisions are made.

4 Q. Now, accepting that it's important if
5 the public are going to be able to trace through this
6 process and they are going to go to the efforts of
7 coming to the open house and providing the public
8 input, they want to see what the result of that is,
9 where would I see this result in a more detailed form
10 once the draft timber management plan is in place?

11 A. Well, I would expect that the results
12 of this presentation of alternatives would be discussed
13 somewhere in the draft timber management plan.

14 Q. And for the preferred alternative you
15 would expect to see a greater level of detail
16 consistent with the environmental planning principles
17 that you've talked about at this hearing?

18 A. I wouldn't say necessarily so. The
19 purpose of providing greater levels of detail is to
20 assist you in choosing between alternatives. When they
21 may appear to be fairly evenly weighted, you may have
22 to gather more detail on certain aspects before you can
23 really determine which one you prefer.

24 Q. Okay.

25 MADAM CHAIR: Is this a good time for the

1 morning break, Mr. Hanna, or are you moving on to --

2 MR. HANNA: Certainly, it's fine.

3 MADAM CHAIR: All right. We will be back
4 in 20 minutes.

5 ---Recess taken at 10:30 a.m.

6 ---On resuming at 10:55 a.m.

7 MADAM CHAIR: Please be seated.

8 MR. HANNA: Q. Ms Dahl, a couple of
9 things to follow up from before the break. First of
10 all, it's not clear to me yet. The example that you've
11 put here you're suggesting on pages 8 and 9 of the
12 witness statement are suggested for the first open
13 house.

14 Is the suggestion or a recommendation a
15 requirement by the Ministry that a similar type of
16 summary presentation be presented in the draft timber
17 management plan, the final timber management plan so
18 that the public at that point can see the actual
19 weightings that have been used to determine the
20 preferred alternative?

21 MS. DAHL: A. We haven't proposed that.

22 Q. Now, I would like to turn to page 20
23 of the guidelines which is behind Tab 12 of Exhibit
24 2200B under the heading Evaluation Methods. The second
25 paragraph, first sentence. It says in the first

1 paragraph that:

2 "The Act does not require a specific
3 evaluation method."

4 And then in the second paragraph it says:

5 "It is important, however, that a
6 proponent establishes one or more methods
7 for predicting and evaluating net
8 environmental effects."

9 Now, do you agree with that statement?

10 A. Yes.

11 Q. Okay. Now, I had asked you before
12 the break with respect to interrogatory No. 23 part
13 (b), the portion which said that the various issues
14 which should be canvassed at various stages of the EA,
15 and it makes reference to methods for assessing or
16 evaluating the alternatives, and it indicated this
17 should be determined in the parent class EA, and I had
18 asked you if you could indicate to me from the list of
19 20 formal evaluation methods contained in the
20 environmental assessment report, a copy of which I
21 provided to you before the break, which of those
22 methods has been canvassed and established in the
23 parent class EA for timber management?

24 A. I looked at the list of methods,
25 although I haven't read specifically what they are in

1 detail, but I don't believe that any of the methods
2 listed here were specifically set out in the parent
3 Class EA document.

4 Q. Is there set out in the parent class
5 EA document an evaluation method or methods for
6 assessing alternatives at the timber management plan
7 level?

8 A. I don't recall one in the parent
9 Class EA, but I also haven't looked at it recently so I
10 can't say for certain.

11 I do believe that there are terms and
12 conditions, however, which do set out generally how
13 alternatives will be considered for certain activities.

14 Q. Now, the example that you have
15 provided on Tables 8 and 9, there are no, what have
16 been termed in this hearing, landscape level effects
17 such as biodiversity, wildlife habitat, those types of
18 issues dealt with in any of the advantages or
19 disadvantages in the example that you provided, and I
20 accept that it's an example.

21 If, for example, biodiversity was a
22 concern, would you see that being one of the advantages
23 or disadvantages that would be listed in this type of
24 analysis?

25 A. If the planning team with the input

1 from the local citizens committee determined that that
2 was an important concern and that it was an advantage
3 or disadvantage for a certain area, then I think it
4 would show up in the list of advantages and
5 disadvantages.

6 Q. And that comment applies also to
7 things like wildlife habitat that may occur over the
8 area of the forest management unit?

9 A. If it was a concern, an advantage or
10 disadvantage, yes.

11 Q. Now, I would like to deal with the
12 null alternative and it's raised here in this example
13 that you've provided.

14 Now, the first question I have, and
15 perhaps we should go to the guidelines themselves where
16 they talk about the null alternative on page 17, behind
17 Tab 12 of Exhibit 2200B.

18 And it indicates here that normal ongoing
19 maintenance or improvement should be included as part
20 of the do nothing alternative. I'm reading the last
21 sentence in the first paragraph under the heading, The
22 Do Nothing Alternative.

23 Now, as part of the normal activities
24 that might take place in a forest management unit and
25 particularly at a mill that may be trying to meet its

1 wood supply, it may look at different ways to satisfy
2 its wood demand such as recycling or imported wood
3 fiber, and in the event that harvesting was terminated,
4 do nothing, we aren't going to approve any harvesting
5 or any removal of the wood from the forest management
6 unit, is it a legitimate part of the do nothing
7 alternative to look at the issue of import and
8 recycling, import of wood or recycling of fiber to meet
9 the wood objective?

10 A. I would have to say I think it may
11 be.

12 Q. Okay.

13 A. Again, the proponent would define
14 their alternative and their do nothing alternative and
15 then during review you would have to assess the
16 acceptability of that.

17 Q. Now, I want to just pursue an issue
18 that I believe Mr. Martel raised with you and it has to
19 do with the do nothing alternative; and, that is,
20 imagine that the example that we have here at this time
21 is now at the next phase of the planning process, the
22 draft timber management plan, and the null alternative
23 when we weighted it and look at it relative to the
24 other alternatives comes out in terms of its net
25 effects better than any of the other alternatives, what

1 is the appropriate course of action in that
2 circumstance?

3 A. Well, first of all, that is not the
4 use of the null alternative that I had discussed
5 yesterday.

6 Q. I didn't ask you the use, I'm asking
7 you what the appropriate -- I understand the use,
8 you've described that.

9 I'm asking you what is the appropriate
10 course of action when one does a net effects analysis
11 and determines that the null alternative has - how
12 shall I say - a more positive set of net effects than
13 any other alternative?

14 A. I think in that case then there may
15 be a tradeoff required and the proponent and the
16 affected communities would then have to determine how
17 they wish to proceed, having that understanding.

18 Q. Is not the purpose of going through a
19 formal evaluation of alternatives to rank the
20 alternatives and to determine the most preferred
21 alternative?

22 A. Yes, that's the purpose of it.

23 Q. And if the most preferred
24 alternative, now having gone through that analysis, is
25 the null alternative, the null alternative then becomes

1 the preferred alternative?

2 A. I think if all parties involved
3 including the proponent agreed that that was the
4 preferred alternative, then they could choose to select
5 that alternative.

6 Q. Now, in your oral evidence you made a
7 statement during discussion of the null alternative
8 that you do not have to document the null alternative.
9 Do you recall that?

10 A. I believe so.

11 Q. Now, turning -- or keeping at page 17
12 of the guidelines, under the heading The Null
13 Alternative, the do nothing alternative and the null
14 alternative are one in the same; correct?

15 A. I think there are various ways of
16 looking at what we call the null alternative. We can
17 call it the do nothing or the null alternative.
18 There's different contexts in which it is used.

19 Q. Well, in the context it's used in
20 these guidelines, is it being used consistently with
21 what you've described as the null alternative in your
22 evidence?

23 A. Are you asking if my discussion of
24 the null alternative is the same -- is proposing the
25 same as what's presented here in terms of the do

1 nothing alternative?

2 Q. I want to know if the do nothing
3 alternative and the null alternative are one in the
4 same as far as these guidelines go and the evidence
5 that you presented here orally?

6 A. Well, the do nothing or null
7 alternative, the words can be interchanged. It's
8 considering what the effects on the environment would
9 be if you don't proceed.

10 There's different contexts in which it
11 can be used. It can be used at the alternatives to
12 stage in comparison to alternative methods or whenever
13 you're comparing alternatives.

14 Q. All right.

15 A. There are different ways in which it
16 can be used.

17 Q. You have come here and used the term
18 null alternative at different levels at the alternative
19 methods stage, at least as far as Exhibit 2217 goes.
20 Now, my question is: In that context, is that
21 synonymous with the do nothing alternative as set out in
22 these guidelines?

23 A. Yes, it would be considering the
24 environment.

25 Q. Thank you.

1 A. If you didn't do anything.

2 Q. Now, in the first paragraph it's
3 states:

4 "The do nothing alternative should be
5 considered by the proponents in all
6 cases."

7 And I take it that's consistent with the
8 oral evidence that you provided.

9 A. I'm not certain. I think the
10 guideline may be referring to whenever you're doing an
11 environmental assessment you should consider the null
12 alternative. I think that is the context that it's set
13 out here.

14 Q. So you don't consider the null
15 alternative in an environmental study report, that's
16 your experience in class EAs?

17 A. In some class EAs they do explicitly
18 consider the null alternative, in others they say that
19 they implicitly consider it when they're considering
20 their advantages and disadvantages. There is some
21 variation.

22 Q. As an environmental planner is it
23 your view that the do nothing alternative should be
24 considered by the proponents in all cases?

25 A. In all cases when you're comparing

1 alternatives to each other, in my opinion, you should
2 consider it, yes.

3 Q. All right. Now, the second
4 paragraph, the last sentence, it says:

5 "A clear presentation of the do nothing
6 alternative also assists the Minister of
7 the Environment or the Board in deciding
8 whether the undertaking should be
9 approved."

10 Now, do you agree with that statement?

11 A. Yes, in the context of comparing the
12 do nothing alternative to the undertaking you're
13 seeking approval for.

14 Q. Okay. Now, given the statement that
15 we do not have to document the null alternative in
16 timber management planning in the timber management
17 plan, and given that you said we want to compare
18 alternatives, that's important, we should look at all
19 options I think was the quote that you used from the
20 Ministry of Natural Resources publication, why is it
21 that the Minister and the Board require a clear
22 presentation, and I presume a clear presentation means
23 a clear documentation of the null alternative to reach
24 a decision and the public don't?

25 A. The discussion in the guidelines here

1 is presented in the context of an individual
2 environmental assessment document where you present a
3 clear discussion of the null alternative compared to
4 the undertaking, and that also implies when you're
5 seeking approval for a class environmental assessment.

6 What I have suggested, however, it goes
7 beyond that. Once there's been a decision to approve
8 the Class EA and you're implementing projects and
9 comparing alternatives then, in my opinion, it's
10 important to also, in determining your advantages and
11 disadvantages, consider the environmental effects of
12 not operating for comparison purposes.

13 I think it's a slightly different context
14 than the way this is set out.

15 Q. Okay. The reason I asked you that
16 question, and you have reiterated it now, when you're
17 comparing alternatives it's good to look at the do
18 nothing alternative or null alternative, that's what
19 you've told me, and I'm accepting that, and you don't
20 disagree that there are alternatives that have to be
21 evaluate in a timber management plan?

22 A. Yes.

23 Q. So we're comparing the alternatives
24 in a timber management plan, and the public I presume
25 is no different than the Minister and the Board if they

1 want to come to a meaningful and informed position as
2 to which, in their view, is the preferred alternative,
3 and presumably the reason that the Minister and the
4 Board wants to have a clear presentation of the null
5 alternative or the do nothing alternative is so that
6 they can come to that informed opinion. Is that
7 incorrect?

8 A. I think the purpose -- well, the
9 purpose of the null alternative is to assist in showing
10 that the advantages of proceeding with the undertaking
11 outweigh the disadvantages.

12 In the context that I was speaking of the
13 null alternative, there may be instances where there's
14 significant concern or controversy and there may be
15 some benefits in documenting the null alternative, but
16 what I'm saying is it's not -- you don't have to
17 document it in every case when you consider it.

18 If it provides you assistance in
19 demonstrating the need to or why you've selected the
20 alternative you have, then you can document it.

21 Again, I think it would be the decision
22 of the planning team, if there's benefit in doing that,
23 then they're certainly free to document the null
24 alternative in each of those areas. I'm just saying
25 that we're not requiring it in every case.

1 Q. But isn't the purpose of this whole
2 exercise of going through all the four years we've been
3 here and whatever of trying to present to the public
4 the information so that they can become more involved,
5 in addition to other things, but that's one of the
6 central reasons we're going through this process;
7 right?

8 A. Yes.

9 Q. If in order for the Minister and the
10 Board to arrive at an informed decision as to whether
11 or not an undertaking should be approved, why is a
12 clear presentation of the do nothing alternative
13 required there and not in every case in timber
14 management planning?

15 A. Again, I think it depends on the
16 circumstances. There may be cases where the public
17 can -- it's understandable why a certain alternative is
18 preferred and, in other cases, it may not be so clear,
19 and then you may have to show the null alternative to
20 make that clearer for the public.

21 Q. Okay. Now, when you were talking
22 about the null alternative you made the statement that:

23 "The five-year volume of wood is a
24 given."

25 Do you recall that? You said that's a

1 given.

2 A. Yes, that is an objective that you're
3 trying to achieve. It's set out in the timber
4 management plan.

5 Q. And on that basis that would preclude
6 the acceptance of the null alternative for the forest
7 management unit as a whole.

8 A. I would think that, yes. I mean, if
9 you approve the Class EA you are making a decision that
10 you're accepting the undertaking and the purpose to
11 provide that supply of wood to the forest industry.

12 Q. But there's nothing in this
13 undertaking that says - and I don't know of any terms
14 and conditions that have been asked for the Board to
15 approve - that says we want you to approve the
16 following supply of wood for every forest management
17 unit in this province. The Board, as far as I know, is
18 not being asked to render a decision on that?

19 A. Well, no, I don't think you could do
20 that.

21 Q. What the Board is being asked to
22 render a decision on is the acceptance of those
23 activities and the planning process that goes along
24 with it.

25 A. Yes.

1 Q. Okay. Now, given that there are
2 certain wood volume targets established for the various
3 forest management units and there are also targets
4 established in terms of, for example, moose and remote
5 tourism, what happens when they can't be met within the
6 forest management unit with the wood targets at the
7 same time; are you suggesting precedence is given to
8 the wood supply target over all the others?

9 A. No. There would have to be tradeoffs
10 made. I'm just saying that a timber management plan
11 sets out your wood supply objective and then when
12 you're planning your timber management activities, part
13 of your purpose is to try and achieve that objective.
14 In some cases you may not be able to fully achieve it,
15 that you may have to make tradeoffs with the other
16 values.

17 Q. And that's a legitimate part of
18 environmental assessment planning, in your experience?

19 A. Making tradeoffs between values, yes.

20 Q. And if in the extreme event you can
21 only have, for example, remote tourism and no wood
22 supply and it was decided that that was the decided
23 tradeoff, that would be de facto the null alternative?

24 A. Yes.

25 Q. And that could be chosen, that would

1 be consistent with the way that you see the
2 environmental assessment process working and timber
3 management planning within that process?

4 A. Well, I think the null alternative is
5 always a possibility.

6 Q. Yes.

7 A. It could be chosen, but I don't think
8 it's a very likely possibility.

9 Q. I would agree with you on that, that
10 is not -- it's a matter of degree rather than extremes.
11 I agree with you.

12 I would like to move now to Interrogatory
13 Question 27 part (b) and this interrogatory is in
14 respect to a statement made on page 10 of your witness
15 statement at the top of the page that goes:

16 "MOE takes the position that the public
17 should be able to comment with respect to
18 the decisions on where operations will
19 occur for the five-year period. "

20 Correct?

21 A. Yes.

22 Q. And part (b) of the interrogatory is
23 asking:

24 "Do you take the position that the public
25 should be able to comment with respect to

1 implicit or explicit decisions on the
2 overall configuration of operations
3 within a forest management unit for the
4 20-year period or for the entire rotation
5 of the forest?"

6 And your answer is a simple no; correct?

7 A. Yes.

8 Q. Why do you feel that it is
9 unreasonable for the public to comment on matters such
10 as the implicit allocation and access of stands over a
11 20-year period or a full rotation of the forest?

12 A. If the public understood those things
13 and wanted to provide comments on those things, then
14 there isn't anything to prevent the public from
15 providing those comments. But simply the intention of
16 this proposal is to get comments on the decision on
17 where the activities will be focused for the five-year
18 period of that timber management plan.

19 Q. So you're changing the answer then,
20 you're saying -- the question was: Do you take the
21 position the public should be able to comment, and
22 you're saying now, yes, they can if they're so
23 inclined.

24 MS. SEABORN: She's not changing the
25 answer, Mr. Hanna. I don't think that is fair.

1 MR. HANNA: Well, maybe I didn't hear it
2 very well, Ms. Seaborn. I certainly heard there's a
3 change in the position.

4 Q. Are you saying the public can or
5 cannot comment on operations over a 20 or full rotation
6 of the forest? I would like a yes or no answer.

7 MS. DAHL: A. Yes, the public can
8 comment on those things, but not in the context of this
9 proposal.

10 As it says here, we're taking the
11 position that they should be commenting on the
12 operations for the five-year period and, in that
13 context, I don't see how commenting on the broader
14 implicit or explicit decisions on configuration of the
15 forest over the 20-year term is directly related to
16 this decision on the five-year operations.

17 Q. Mr. Bax, in your experience as a
18 professional forester is there a connection between the
19 decisions you make at the 20-year period and the
20 five-year period.

21 MR. BAX: A. I'm sorry, say that again.
22 Is there a difference...?

23 Q. No, is there a connection between the
24 decisions you make at the 20-year planning horizon and
25 the five-year planning horizon, does that set out the

1 course of events that are available in the five-year...

2 A. Yes. No, absolutely, but the
3 decision made is not either given by the public or the
4 forester. I mean, the wood supply tells you where you
5 have to go. If you have a mature forest in only one
6 area, I mean, what choices do you have, that's where
7 the mature wood is.

8 You know, we don't have control over
9 that. I mean, it's just common sense, you go where the
10 wood is ready to be harvested. And that's what we do,
11 we decide and determine -- or determine from cruises
12 and the FRI and everything else we have where the wood
13 is that's mature that's ready to be harvested of the
14 size and species that we need.

15 What else can we do. That's what you've
16 got. Like, I don't understand your question. The
17 public doesn't decide that, neither does the forester,
18 you know, the resource does.

19 Q. The resource builds the roads, the
20 resource drives the truck. Who does it all out there;
21 does it just happen itself, is it a natural evolution?

22 A. No, no. But where those roads go is
23 decided by the state of maturity of the forest and
24 species there. I mean, we don't have a choice. You
25 look at it, you say: Here's my mature wood, here's my

1 allocation for the 20-year or five-year.

2 Q. What if I have a fully accessed
3 forest management unit, Mr. Bax?

4 A. You can have all the access you want,
5 but if the wood isn't mature or it's in a species that
6 you don't need --

7 Q. Well, what if I don't have an
8 even-aged class distribution in my forest management
9 unit, I've got a highly imbalanced age-class
10 distribution?

11 A. The resource is going to dictate
12 where you go. You don't have a choice.

13 Q. I won't debate that right now. Given
14 what Mr. Bax has said, that there is a strong
15 connection between the 20-year plan and the five-year
16 plan, it's then legitimate, Ms. Dahl, to speak or to
17 comment on the 20-year plan in that context?

18 MS. DAHL: A. As I said, the public can
19 comment on that, but I don't believe that that is going
20 to be a major factor in the decision on where the
21 operations for the five-year period are going to take
22 place.

23 Q. Now, in part (c) of that
24 interrogatory it asked if you agreed that the
25 underlying basis for calculating MAD contains implicit

1 decisions regarding the nature of timber management
2 activities throughout an entire FMU for the entire
3 rotation of the forest, and you responded to say that
4 you are not a forester. Mr. Bax you are?

5 MR. BAX: A. I'm a forester, yes, I am.

6 Q. Now, would you agree that implicit in
7 the calculation of MAD is certain decisions concerning
8 access and harvesting of the forest management unit and
9 the stands therein?

10 A. Yes.

11 Q. And also in the calculation of the
12 MAD there are assumptions regarding the optimum
13 rotation age of stands?

14 A. That's correct.

15 Q. And that some members of the public
16 may have differing views as to what the optimum age of
17 the rotation age of the stands might be?

18 A. Depending on how they define optimum.

19 Q. Yes?

20 A. Yes.

21 Q. Old growth being a classic example?

22 A. Yes.

23 Q. And these implicit assumptions in
24 terms of which stands are going to be accessed, what
25 the rotation age, selection criteria, a whole variety

1 of things have far reaching implications in terms of
2 the forest cover, what is its pattern?

3 A. The impact of those activities, yes.

4 Q. Now, Ms. Dahl, do you feel that these
5 types of issues are legitimate issues to be considered
6 within the environmental assessment planning framework?

7 MS. DAHL: A. Yes, and I would add that
8 I believe those issues are to be presented to the
9 public to review and comment on at this first
10 information centre.

11 Q. Well, that raises a question, because
12 in your discussion of the index which is contained on
13 pages 20 and 21 of the witness statement you made a
14 statement that you eliminated a number of factors from
15 the context, or from the table of contents that do not
16 fit within the environmental assessment planning
17 framework or format, and you've listed three, you said
18 the forecast of wood, regeneration to commercial
19 species, and MAD modeling. Those were not issues that
20 were environmental assessment issues.

21 A. I think that's information that
22 relates more directly to timber management planning and
23 not as directly to environmental assessment matters,
24 is what I had said.

25 Q. We just heard Mr. Bax tell us that

1 the MAD calculation implicitly has in it issues such as
2 which stands are going to be harvested and when, how,
3 whether they're going to be accessed or not, what the
4 rotation age on those stands is going to be, a large
5 number of issues that have far reaching environmental
6 implications.

7 Now, why are those not legitimate issues
8 for an environmental assessment framework?

9 A. The issues are certainly related to
10 environmental assessment, but I'm not sure that you
11 need a significant level of detail describing all of
12 those issues in every timber management plan.

13 In some cases it may be a concern, and I
14 am sure that that information would be available, you
15 could find it if you wanted to.

16 I'm just saying for the purpose of ease
17 of finding the general information that you typically
18 look for when you're looking at environmental
19 assessment matters, it may not be necessary to
20 highlight those particular items as being significant
21 to those environmental assessment matters.

22 Q. All right. I would like to deal with
23 the Interrogatory No. 33 and this has to deal with the
24 bump-up. And if you will just allow me I'm going to
25 try and use Mr. Martel's advice and try to go to the

1 centre of this rather than parse it up into a whole
2 bunch of little pieces.

3 And the essence of these questions that
4 were set out here is simply this: My client has a very
5 serious concern and the concern is this, we have a
6 number of very committed people who are members of the
7 organization who have, over the years, given tremendous
8 amounts of lifetimes to participating in public
9 consultation.

10 There is a very serious risk, I will
11 submit to you, that if we go through this planning
12 process as set out with a local citizens committee and
13 an 18-month planning horizon at a minimum to prepare
14 the timber management plan, with the ongoing active
15 participation of those citizens, a lot of time and
16 effort is invested, you've gone to the general public
17 and whatever, we get to the end of the day and we
18 can't -- there's an irreconcilable issue, you say:
19 We're going to bump it up, start over. You have a lot
20 of very, very discouraged and disenchanted people.

21 I'd like to know from you what proposal
22 you have, other than going to an individual EA, going
23 through presubmission consultation, government review,
24 all of the rest of the paraphernalia that goes with an
25 individual environmental assessment and all the public

1 consultation and all the effort that's going to be put
2 into it again, how are we going to avoid that?

3 A. First of all, I would comment that I
4 don't think a bump-up request would be granted on the
5 basis of a conflict or difference of opinion. I think
6 it would have to relate to concerns that had not been
7 adequately addressed, that needed more information, or
8 that may be a wider range of alternatives needed to be
9 considered.

10 Bump-ups, I don't believe, are granted
11 for the purpose of resolving an issue, decide on one
12 side or the other, because that's not what an
13 environmental assessment does. At the end of the day
14 you may still have those very same differences of
15 opinion.

16 Secondly, I would say that, having said
17 that, if a bump-up is granted and there are certain
18 areas that require more evaluation or a broader range
19 of alternatives that needs to be considered, some of
20 the work will have already been done in preparing the
21 timber management plan and that can simply be included
22 in the environmental assessment.

23 Where there were areas that required
24 additional work, you would have to undertake that work
25 and go back and re-evaluate things based on the results

1 of that.

2 So the level of public consultation
3 required is going to vary depending on the
4 circumstances of the bump-up and, as I said in the
5 interrogatory response, the proponent will have to
6 decide where they need additional public consultation,
7 which areas they're looking at, that would have to be
8 worked out at that time.

9 Q. In your experience, what's the
10 fastest an individual environmental assessment has ever
11 gone through the process through to final approval at a
12 hearing, starting at the project and final approval?

13 A. Offhand I don't think I can answer
14 that. I may have some information that would show that
15 and, if it would be helpful, I can find that
16 information for the Board.

17 Q. Do you expect that it's less than two
18 years? Do you know of any less than two years?

19 A. As I said, I am not certain. I know
20 that recently there have been some which have proceeded
21 through fairly quickly, but offhand I can't tell you
22 what the time frame was. It certainly has been
23 improving in the last few years.

24 Q. Sorry. I would like to come back to
25 this matter of that the purpose of an individual EA is

1 not conflict resolution, the purpose of a class -- or
2 the individual EA is to look at a broader range of
3 alternatives, and I forget the other things that you
4 listed?

5 A. The purpose of a bump-up.

6 Q. Purpose of the bump-up and,
7 therefore, the purpose of individual environmental
8 assessments, not the purpose of the assessment of the
9 undertaking, but the reason we are going to
10 environmental assessment is to look at those broader
11 range of alternatives, do that additional analysis
12 you're suggesting might not have been done?

13 A. If that's the case, yes, like, if
14 there's a requirement to look at a broader range of
15 alternatives.

16 Q. Now, if that is the case, why do we
17 need an Environmental Assessment Board?

18 A. When an environmental assessment is
19 submitted to the Minister the Minister is asked to make
20 a decision on approving that undertaking.

21 If the Minister determines that there are
22 concerns and that there may need to be further public
23 involvement before a decision can be made, then she
24 would refer the matter to a Board hearing where parties
25 have an opportunity to participate more fully in that

1 decision-making process and the Board then makes that
2 decision of determining if the undertaking is
3 acceptable.

4 Q. To resolve the conflict of views that
5 may be present in terms of whether the EA is adequate
6 and whether the impacts associated with the undertaking
7 are acceptable?

8 A. Yes.

9 Q. How do you see those same issues
10 being resolved within the class EA of a timber
11 management plan? You've got groups in a community that
12 have diverging views, there's irreconcilable conflict,
13 there has to be a third party mediating and decide what
14 is the best public interest. Who's going to do that?

15 A. I wouldn't agree that that decision
16 always has to be made by a third party.

17 Q. I'm putting to you they're
18 irreconcilable, and when they're irreconcilable, by
19 definition somebody has got to decide.

20 A. And the someone who has to decide is
21 the someone who is accountable when they proceed with
22 the project. In that case there has to be a judgment
23 call, and the person who's held accountable is normally
24 the person -- normally the person who would make that
25 decision, unless they wanted to bring in a third party.

1 Q. All right. Are there any mechanisms
2 that you are aware of in the current Class EA planning
3 process or the environmental assessment planning
4 process, or whatever, that would provide an opportunity
5 for third party review of issues in dispute in a timber
6 management plan without having to go through and
7 repeating the entire planning process under the guise
8 of an individual environmental assessment?

9 A. There's an issue resolution process
10 set out in the MNR's proposed terms and conditions
11 which MOE supports. Again, that doesn't involve a
12 third party.

13 There's also an opportunity to take that
14 issue to the Minister of the Environment who would then
15 make a decision on whether or not to grant the bump-up
16 request.

17 My point is simply that I don't believe
18 that a bump-up request would be granted solely for the
19 purpose of making a third party decision on an issue.

20 Q. The Nixon Lake bump-up that was
21 granted, the one that has been granted, grounds for
22 granting that, as I understand it, were particularly
23 the concerns of Mr. Nixon and the associated impacts
24 concerned with old growth timber in the area,
25 remoteness and those types of issues; is that correct?

1 A. Those were the main concerns involved
2 in that issue, yes.

3 Q. And those issues had been looked at
4 in the timber management plan and there was a
5 divergence of views as to what was the appropriate way
6 to proceed.

7 A. I don't believe, from my
8 recollection, that all of those issues were explicitly
9 examined in the timber management plan, or that
10 information that was satisfactory to Mr. Nixon and the
11 other people in the area who were concerned had been
12 gathered to make those decisions.

13 Q. But the Ministry of Natural Resources
14 and the forest companies were of the view that the
15 information was adequate and there was irreconcilable
16 positions?

17 A. I think that's a different case
18 because there is a difference of opinion on whether or
19 not the amount of information available is adequate.

20 Q. Well, I agree.

21 A. Which is different from a case where
22 you have information and you have competing values and
23 one side prefers to proceed one way based on their
24 values and another side disagrees with that based on
25 their values.

1 That's the kind of conflict which I don't
2 believe would be resolved by an individual
3 environmental assessment. You would still have those
4 same differences in values at the end of the day.

5 Q. Can we turn to Interrogatory No. 36,
6 please, particularly part (b) and the question was:

7 "Which sections of the Environmental
8 Assessment Act is the environmental study
9 report intended to satisfy for the
10 individual projects approved under a
11 class EA?"

12 And you indicated none. Can you explain
13 that to me? I thought ESRs were prepared under the
14 legislative framework of environmental assessment. Is
15 that incorrect?

16 A. They are prepared when they're
17 required in a Class EA which is approved under the Act,
18 but the purpose of the environmental study report is to
19 document the planning process which has been followed
20 and to outline the features of the specific projects
21 for the public to review and understand.

22 Q. So that those specific sections,
23 particularly section 5(3) of the Act could be addressed
24 at a local specific level within that broad planning
25 framework that's been established in the parent Class

1 EA?

2 A. If that is the way that the planning
3 process is structured in the parent class EA and that's
4 what's approved, then that is what would be done at the
5 local level.

6 It depends on what is put forward as the
7 planning process in the Class EA. But, again, the
8 environmental study report itself is not directly
9 related to the requirements of the Act, it's there to
10 document what was done and how it was done and what the
11 results were.

12 Q. But in order to go through a net
13 effects analysis for timber management in the area of
14 the undertaking, given the scope and complexity and all
15 the things that this Board last heard for four years
16 over, say, a 20-year horizon, let alone a full rotation
17 of the forest, is just practically impossible, or do
18 you disagree with that?

19 A. I would say given the current levels
20 of knowledge that we have that it would be pretty
21 difficult to do that, yes.

22 Q. And what we're basically doing is
23 parsing the problem and saying: Okay, fine, here's a
24 general planning process, we understand that there are
25 different circumstances out there, you deal with those

1 particular circumstances and whatever and make sure the
2 net effects that you come up with are acceptable within
3 the overall framework of the Class EA in the
4 Environmental Assessment Act. That's what you're
5 attempting to do; isn't it?

6 A. Can I ask you to just repeat that
7 again.

8 Q. Sure. What you're essentially doing
9 is saying: Here's a planning process, now apply that
10 planning process on an individual forest management
11 unit level, look at the net effects associated with
12 applying the activities on that individual forest
13 management unit and determine if they're acceptable.

14 If they aren't acceptable, we have a
15 bump-up, we can go through the whole process and
16 whatever; if they are acceptable, then continue on, you
17 don't have to go through any further formal approval
18 under the Act.

19 A. I suppose you could characterize it
20 that way, but I would say the purpose of the planning
21 process is to ensure that when you implement the
22 activities which have been approved you do so in a
23 manner that is consistent with environmental assessment
24 in terms of that you look at alternatives and you try
25 to implement them in a way that will minimize the

1 impacts to the environment.

2 Q. Leading to protection, conservation
3 and wise management of the environment.

4 A. Yes, that's what you're attempting to
5 achieve.

6 Q. Through the individual plan.

7 A. Yes, in the implementation of that
8 activity.

9 Q. Ms. Dahl, you can relax for a minute,
10 I'm going to hopefully keep Mr. Neary busy for 15
11 minutes and I'll be finished.

12 Now, Mr. Neary, first of all, in terms of
13 your experience, I understand - and this goes from a
14 long understanding of your experience - that you have
15 experience in the application of quantitative
16 predictive techniques dealing particularly with aquatic
17 systems; is that correct?

18 MR. NEARY: A. That's correct.

19 Q. I don't believe you have any
20 experience to deal with things such as habitat supply
21 analysis or wildlife biology or those sort of issues;
22 is that correct?

23 A. No, I do not.

24 Q. Now, in terms of your experience, I
25 didn't see in your CV and I certainly don't know from

1 other sources of you having been involved in actually
2 predicting the impacts of undertakings such as timber
3 management on a practical routine basis?

4 A. Not on a practical routine basis.

5 Q. And you haven't prepared an
6 environmental assessment?

7 A. I have not.

8 Q. Now, you obviously have experience in
9 applying cumulative watershed impacts as is evidenced
10 by the paper that you authored that's been entered
11 into -- with the interrogatory package which has the
12 trophic model and the 5-3 lake sequence whatever in it.
13 That's an example of a cumulative watershed impact
14 model; is that correct?

15 A. Yes, it's an example.

16 Q. Now, what experience do you have in
17 applying cumulative watershed impact models for, for
18 example, erosion impacts?

19 A. None.

20 Q. And in terms of acidification?

21 A. Cumulative impact models.

22 Q. Similar to the trophic model that
23 you've published on?

24 A. I've seen them -- I've seen the
25 models applied. I have actually done the application.

1 Q. Now, I'm trying to take Mr. Martel's
2 direction here to heart in terms avoiding my torturous
3 routes of getting at the heart of things, and as I look
4 at the overall gist of the responses you've given in
5 the interrogatories that you're basically in support of
6 the use of quantitative predictive techniques with the
7 proviso that it has to be done in a reasonable way in
8 terms of time and cost.

9 A. You also, I think, have to take into
10 consideration the improvement in your management
11 decision as a result of the effort involved in applying
12 those.

13 Q. Okay, I accept that. Now, I want to
14 deal with one particular issue and that has to do with
15 what we do in the face of uncertainty.

16 You have - and I'm not going to pull out
17 the actual interrogatory because of the time - but as I
18 remember you indicated that we should wait in applying
19 some of these models until we have better data and
20 better understanding was the gist of your response.

21 A. Yes.

22 Q. Now, what I didn't understand was
23 what do we do in the interim, what do we do accepting -
24 at this point in time I'm not disputing that we have
25 that preposity of knowledge and understanding - but

1 given that we have that given that these activities are
2 continuing, what do we do in the interim if we don't
3 predict the impacts in a crude way if not a perfect
4 way?

5 A. I think what you do is you, based on
6 the understanding you do have, you make a judgment as
7 to the possible significance of the impact.

8 Q. Is a judgment not a model?

9 A. Qualitative.

10 Q. And that qualitative model can be put
11 in quantitative terms relatively straightforward?

12 A. You can put your conceptual -- you
13 can write down a conceptual model. Frequently what is
14 lacking, in my experience, is the data to calibrate the
15 model, datasets with which to assess how valid it is.

16 Q. And that is the same problem you have
17 in a qualitative or a judgmental model as a strict --
18 the most rigorous, statistical quantitative model you
19 can imagine. It's no different problem, the problem
20 exists in both cases?

21 A. Yes.

22 Q. Now, one of your messages is that you
23 said that we should proceed with caution when we have
24 uncertainty.

25 A. No, I believe I said that we should

1 proceed with caution if we have uncertainty and our
2 understanding of the significance of the possible
3 outcome is serious or -- I'm paraphrasing myself.

4 Q. Okay.

5 A. I'm not saying that we proceed with
6 caution every time we're uncertain otherwise we
7 wouldn't cross the street.

8 Q. Now, would you agree that for those
9 potentially significant environmental effects, and I
10 take it you're of the view that acidification is a
11 potentially significant environmental effect at a
12 watershed level?

13 A. It's one -- yes, it's one where our
14 level of knowledge is extremely low as it relates to
15 the impact of timber management.

16 Q. I see this as sort of having two
17 balls in my hand: one is I've got to decide where
18 there's uncertainty, and the other is where there's
19 potentially significant impact.

20 And as I understand you're saying there's
21 a high level of uncertainty and there's a potentially
22 significant impact?

23 A. Yes.

24 Q. So that's an example where we should
25 proceed with caution?

1 A. Yes.

2 Q. Okay. Now, would you agree that it
3 is more cautious and prudent -- it is a more cautious
4 and prudent approach to undertake a forecast using the
5 best available knowledge and data of the potential
6 acidification impacts rather than to not attempt any
7 such forecast at all?

8 A. Could you rephrase that?

9 Q. I can't rephrase it.

10 A. Or I mean, repeat it. Repeat it.

11 Q. Would you agree that it is a more
12 cautious and prudent approach to undertake a forecast
13 using the best available knowledge and data of the
14 potential acidification impacts rather than to not
15 attempt any such forecast at all?

16 A. No, I would not agree with that.

17 Q. All right. And why not?

18 A. Because I'm aware of some of the gaps
19 both in knowledge of processes involved and in the data
20 that would be required to reasonably model it, and I
21 think that you can capture some of the caution with the
22 general guidelines as we are proposing.

23 Q. Well, that's interesting. Are you
24 suggesting in the guidelines there is not a forecast
25 using the best available knowledge and data of the

1 potential acidification impacts, that that was not the
2 basis?

3 A. It wasn't quantitatively done.

4 Q. Well, we're back now to what's
5 qualitative and what's quantitative.

6 A. Agreed.

7 Q. But you would agree that it's better
8 to lay it out explicitly, even if it's a qualitative
9 quasi-quantitative assessment than to leave it
10 implicitly in peoples' minds. Isn't that what science
11 is all about, Mr. Neary?

12 A. Well, of course, we're working from
13 mental models all the time, and when they go from
14 qualitative to semi-quantitative to quantitative is a
15 matter of judgment.

16 Q. All right. Now, the reason you're
17 concerned about the gaps in knowledge is that there's a
18 wide range and possible outcomes that could result from
19 a quantitative model and the uncertainty?

20 A. The exercise of going through a model
21 when you have extremely wide error boundd on what
22 you're predicting is sometimes a dubious value, I
23 think.

24 Q. Are you aware of the use of such
25 models before the National Energy Board to decide on

1 such things as the export of hydroelectricity and its
2 impact on acidification on water bodies in this
3 country?

4 A. Have I seen those models?

5 Q. Are you aware of their application
6 for those types of things?

7 A. No, I'm not.

8 Q. Are you aware of the application of
9 these models throughout the Province of Ontario by the
10 Department of Fisheries and Oceans?

11 A. Yes.

12 Q. So it has been done?

13 A. Yes.

14 Q. And do you see that the application
15 of those models would be inappropriate?

16 A. I have reservations about using that
17 type of approach.

18 Q. What are those?

19 A. I have seen this type of modeling
20 approach result in the development of programs that
21 were based on faulty hypotheses that were developed
22 very early in a hypothetical modeling situation and
23 perhaps ended up in a misdirected program.

24 Q. And that couldn't come from an
25 effectiveness monitoring program?

1 A. No. The specific example I was
2 thinking of was a lot of work that was done trying to
3 assess the effects of acidification on fish communities
4 where an early assumption was that water chemistry was
5 everything and that trophic interactions and other
6 biotic interactions within a lake were insignificant,
7 and I think perhaps some of the effort was misdirected
8 as a result.

9 Q. And so that would be better captured,
10 that problem would be avoided by having a set of
11 guidelines?

12 A. No, I think that problem would be
13 better addressed by going out and doing, constructing
14 reasonable guidelines and going out and getting --
15 filling the gaps in your information.

16 Q. Constructing a set of guidelines or
17 constructing an initial relational model of the
18 watershed and testing it?

19 A. No. In the case of the acidification
20 example I was giving you, I think the best thing -- the
21 best way of tackling that program would have been to
22 mount an aggressive -- a program to reduce acid
23 deposition, which was done, and do some very detailed
24 studies of what was going on in acidifying lakes in
25 terms of...

1 Q. All right. But I'm dealing now with
2 your timber management planning and I'm dealing with
3 the concern that you've brought forward in terms of the
4 potential for intensive logging to contribute to
5 acidification.

6 A. Yes.

7 Q. Now, is the risk associated with
8 acidification of a water body a function of the degree
9 of intensive logging in the watershed?

10 A. According to my understanding,

11 Q. Now, how is the degree -- the unique
12 characteristics, and you will agree that every
13 watershed for all intents and purposes has unique
14 characteristics?

15 A. Yes, I would agree with that.

16 Q. Now, how would I go about in the type
17 of approach that you've described, the guideline
18 approach, how do I deal with the watershed issues that
19 are related to acidification, not putting aside the
20 site-specific issues that you've raised, but how do I
21 deal with those watershed level issues when each
22 watershed is unique in that sense?

23 A. You identify based on your
24 understanding of the process sites where the
25 acidification effects would be more likely to occur.

1 Q. All right.

2 A. You attempt to curtail activities
3 which would exacerbate an acidification effect and you
4 try and build a better understanding of the mechanisms
5 and processes involved so that you can come forward
6 with better methods of controlling a potential effect.

7 Q. All right. But my question is one --
8 I don't disagree with what you've said as far as
9 getting better data and validating models and all that
10 type of thing. What I'm concerned with is trying to
11 make those day-to-day decisions in terms of degrees.

12 You've got, take for an example, a
13 watershed that has 60 per cent of the watershed in what
14 you've identified as a sensitive category, and it's got
15 a high sulphate deposition load at the present time,
16 it's under acid stress, and whether I do intensive
17 logging or tree-length logging, the size of the area
18 that I clear will be very important in terms of what
19 the ultimate impact is on the water body.

20 A. It's one of the factors. In my view,
21 probably doing intensive versus conventional may
22 override it again. This would be something where you
23 could do a semi-quantitative estimate.

24 But based on our knowledge of the whole
25 impact of logging, whether it is intensive logging or

1 conventional logging on acidification, I think that
2 what we have recommended is reasonable.

3 Q. All right. Let's deal with the issue
4 of nutrients.

5 A. Yes.

6 Q. You have quite a bit of experience in
7 the area of phosphorus models; right?

8 A. Yes.

9 Q. Now, the area cleared has an impact
10 in terms of phosphorus; correct?

11 A. Yes.

12 Q. And can you explain to the Board what
13 the significance of phosphorus is in terms of aquatic
14 systems, particularly what are termed allegotrophic
15 systems?

16 A. It's the nutrient in shortest supply
17 in most fresh water lakes, the vast majority of fresh
18 water lakes, and it controls the growth of algae in
19 lakes pretty well. There are -- all the other
20 nutrients are there in adequate supply and a lake's
21 algae population responds pretty well strictly to
22 phosphorus.

23 Q. So as you increased the phosphorus --

24 A. It's true for most lakes.

25 Q. So as you increase the phosphorus to

1 the lake, you get more algae, the water gets green?

2 A. Yes.

3 Q. That's one thing that happens; right?

4 A. That's one thing that happens.

5 Q. It can also affect fisheries;

6 correct, particularly cold water fisheries?

7 A. Yes.

8 Q. And it affects cold water fisheries
9 by having the algae go down into the deep water,
10 decomposing, eating up the oxygen and leaving no oxygen
11 for the fish, in very simple terms?

12 A. In extreme cases, yes.

13 Q. And this is a particular concern of
14 your ministry?

15 A. Yes.

16 Q. And your ministry has developed
17 fairly extensive models to undertake that type of
18 analysis?

19 A. Yes.

20 Q. Those models are available to apply
21 today?

22 A. Yes.

23 Q. Would it surprise you if I told you
24 that in order to apply the Dillon, Rigler phosphorus
25 model in its simplest sense on a watersheds of say in

1 the order of 10,000 hectares that that can be done in
2 two man days?

3 A. It would depend on how many lakes are
4 there.

5 Q. One water body, just for now.

6 A. One water body. No, it wouldn't
7 surprise me.

8 Q. And if you applied your - I don't
9 know what you call this - the Hutchison Neary --

10 A. Trophic status model.

11 Q. Trophic status model, okay. The
12 trophic status model, similar level of effort once you
13 had it up and running and on line ready to go?

14 A. We'd take a couple of hours.

15 Q. And once you have that database you
16 can use that repeatedly time and time again in most of
17 the variables, watersheds, basic climatic factors, a
18 lot of those other factors that go in the model, they
19 don't change much from year to year; do they?

20 A. They don't change much on a lake
21 where you -- or a watershed where you have data. I
22 think the problem that we're dealing with here is very
23 large land base and a very large number of water bodies
24 where there is extremely little data.

25 Q. Right. So what you're saying is you

1 would want to target those analysis to where, for
2 example, there were lake trout lakes. That would be
3 somewhere you would probably want to go in terms of
4 applying those models?

5 A. That's somewhere where Ministry of
6 Natural Resources routinely applies lake models.

7 Q. All right. And you would, in terms
8 of acidification, you would want to go to those
9 watersheds that have likelihood for acidification?

10 A. Yes.

11 Q. And is it true that many of the
12 components used in your trophic status model used in
13 your acidification model, used in erosion models are
14 common; watershed boundaries, hydrology factors, a
15 large number of factors.

16 A. Yeah, there are -- there would be
17 inputs that would be similar. There would also be
18 differences.

19 Q. I agree. So would you agree that
20 there are circumstances today where it's both desirable
21 and practical to apply these types of tools where
22 you've got a sensitive area and you have a potentially
23 large impact?

24 A. The area that I would say would be
25 most desirable to apply these models would be in

1 advance of doing the proposed research on the fisheries
2 effectiveness guidelines to test how good our
3 understanding of the process was, validate it through a
4 well-designed study to see how much reality met our
5 expectations and give us some confidence that we have a
6 model that can be broadly applied.

7 Q. And in the interim -- what you've
8 described is 10 years, more or less?

9 A. (nodding affirmatively)

10 Q. What about the intervening 10 years?

11 MR. FREIDIN: The witness nodded yes.

12 MR. HANNA: Thank you, Mr. freeze.

13 MR. FREIDIN: Just for the record.

14 MR. HANNA: I forgot to get the nod on
15 the record.

16 MR. NEARY: I'm sorry. In the
17 intervening 10 years you draw up some broad guidelines
18 that you think will provide some mitigation for the
19 effect while you learn more about it.

20 MR. HANNA: Q. Why wouldn't I apply your
21 trophic status model? You aren't really one of these
22 academics who's coming forward to me and saying: Oh,
23 well, I'm still working on it, don't use it yet, I'm
24 not confident on it. I don't think you're that kind of
25 person.

1 MR. NEARY: A. No, absolutely not,
2 because there is a cost in terms of data application
3 and I'm not too sure how you would modify your timber
4 management decisions based on the outcome of the
5 trophic status model.

6 Q. Well, what if, for example, I looked
7 at the area going to be cleared in a lake trout
8 watershed and I determined that the export of
9 phosphorus that I expected over the 10-year period was
10 going to be sufficient to cause serious dissolved
11 oxygen problems in that lake, would that not be a basis
12 to modify by timber management activities?

13 A. Yes, but I'm not aware, knowing the
14 way that model works, I'm finding it difficult to
15 conceive of where that would happen. We went through
16 that exercise during the ESSA.

17 Q. You applied the trophic status
18 model--

19 A. Yes.

20 Q. --in terms of area cleared?

21 A. Yes, we did.

22 Q. And what did you find?

23 A. We found that there was an increase
24 of phosphorus content of the lake, but under the range
25 of lake morphometries that we were looking at - that's

1 the shape and size of the lake, Madam Chair,
2 morphometry - it did not predict significant oxygen
3 depletion in the bottom of the lake under a reasonable
4 range of conditions that we applied.

5 Q. And you have not undertaken a similar
6 type of analysis in terms of acidification or erosion
7 effects?

8 A. There was a similar exercise done for
9 erosion.

10 Q. At a watershed level?

11 A. Not at the watershed level. This was
12 done on a site-specific level, again, through the ESSA
13 workshops. Acidification was not attempted just
14 because of the number of gaps in knowledge that it was
15 felt to be necessary to construct even a
16 semi-quantitative model.

17 MR. HANNA: Madam Chair, I have about 15
18 minutes of questions for Mr. Bax. I'm at your leisure.
19 If you want to have lunch now and come back and I'll
20 take 15 minutes, or you want to...

21 MADAM CHAIR: We will hear the conclusion
22 of your cross-examination.

23 MR. HANNA: Q. Mr. Bax, can we turn to
24 Interrogatory No. 14, please. And this has to do with
25 your witness statement, page 2 behind Tab 2 with the

1 matter of availability of data necessary to evaluate
2 silvicultural effectiveness.

3 And part (f) of the interrogatory asks if
4 you agree that one measure of silvicultural
5 effectiveness is the production of biodiversity
6 comparable to that existing prior to timber management
7 activities.

8 And you indicate that, no, this should
9 not be a measure of silvicultural effectiveness; right?

10 MR. BAX: A. That's correct.

11 Q. Now, can you explain to me, first of
12 all, what you interpret as biodiversity?

13 A. Well, I think the problem I have is
14 what do you mean by biodiversity. I mean, the problem
15 is there's no, as far as I can understand, consensus
16 yet as to what we mean by biodiversity. It varies with
17 the people that are interested in it.

18 Q. All right. Let's use for an
19 operative definition, for our discussion right now we
20 will talk about biodiversity in terms of strictly
21 stands at the stand level. I'm not going to deal with
22 the species and genetic diversity and I'm not going to
23 deal with landscape level diversity, just the stands
24 themselves, okay?

25 A. Okay.

1 Q. And I'm going to suggest to you that
2 the measure of diversity will be that as described in
3 the FEC manual in terms of the vegetative components
4 that comprise the different FEC types.

5 A. Okay. The stands, the major
6 vegetation, the tree species.

7 Q. Right. So you've got different types
8 of overstorey, you've got different types of shrubs,
9 and you've got different types of herbs and different
10 types of...

11 A. Okay.

12 Q. That's a broad characterization of
13 what a stand of each FEC type consists of. You're
14 familiar with those?

15 A. Yes, I am.

16 Q. Now, do you agree that silvicultural
17 treatments applied to a site can have a profound effect
18 on the resulting biodiversity of the stand and
19 ultimately at the forest level?

20 A. Yes.

21 Q. And factors such as you described in
22 your evidence in terms of stocking, density and rate of
23 growth have a direct influence in terms of
24 biodiversity?

25 A. Yes, they do.

1 Q. And in your experience, is
2 biodiversity an important and emerging issue of
3 increasing importance in forest management or timber
4 management in prescribing silvicultural treatments?

5 A. We have certainly become much more
6 aware of it in terms of what we do out in the forest,
7 yes, all the way from coast to coast.

8 Q. All right. Now, if I was to say to
9 you that one measure of silvicultural effectiveness
10 would be we want to establish on that site the same FEC
11 type as currently exists, or we want to produce a new
12 FEC type on that site, would that be a legitimate
13 measure of silvicultural effectiveness?

14 A. If we want to create a particular
15 stand?

16 Q. Exactly.

17 A. Would that be an -- and the question
18 is, is that a measure of silvicultural effectiveness?

19 Q. Would that be an appropriate measure
20 of silvicultural effectiveness?

21 A. If we achieve a particular stand,
22 yes, absolutely.

23 Q. Now, from your point of view is it
24 operational in terms of defining what biodiversity is
25 to say to a forester we want a certain FEC type on that

1 site?

2 A. No, I don't believe in my experience
3 yet we have reached that point. There is --

4 Q. All right. And we haven't reached
5 that point because of...?

6 A. The FEC types have just come in over
7 the last three to five years and in the operational
8 sense the working foresters then were just getting
9 familiar with them, the various classifications.

10 I don't think, for example, the final
11 types have been decided. It's evolving as we progress.
12 Certainly the broad categories, yes, we agree on, but
13 there's still a lot of variability that we have to
14 account for to make it an operational type thing that
15 the guys at the front line can use.

16 Q. And can you explain to me -- give me
17 the flavour for the types of variability that you're
18 referring to?

19 A. On a stand by stand basis still we
20 don't have a complete understanding, for example, even
21 of succession and you've referred to that in your
22 interrogatories too.

23 There is just -- I think on average
24 across the boreal forest there's about 3,000 species of
25 - animals and plants. We're trying to classify that

1 according to how we think it should be and how we would
2 like it to be. It's just going to take time.

3 You know, I can give you a black spruce
4 stand back, but if you want a particular black spruce
5 site based on our -- or stand based on certain site
6 characteristics and my manipulation of that, we have
7 still got a lot of learning to do. It's a dynamic
8 process.

9 Q. But isn't that the central issue for
10 the public's concern about biodiversity, in one sense
11 the foresters are saying what we are doing is basically
12 mimicking natural forces; on the other side they're
13 saying: Well, we don't know whether we're going to be
14 able to recreate the natural biodiversity that's in
15 those stands.

16 A. Are you asking me if that's what the
17 public is concerned about?

18 Q. Yes. Isn't that a major concern?

19 A. It's certainly one of the concerns,
20 yes. Again, you know, we run into all types of
21 concerns classified under biodiversity.

22 MR. MARTEL: What public are we talking
23 about when we say that? I hear all this jargon. I
24 want to know which public we're talking about.

25 Because is the public really concerned,

1 the average Joe out there, he just wants to see the
2 forest come back the way it was; doesn't he, he's not
3 looking around to see if we can create a new type of
4 tree, or he's not looking to see if we're going to try
5 to alter...

6 The public, I'm talking about, you know,
7 an individual, maybe a company might want to, but the
8 public - this word that's bantied around - what he
9 wants.

10 I can't remember anybody - and I've been
11 in northern Ontario a long time - telling me that they
12 want all of this change. Maybe you can define the
13 public for me that wants all this change.

14 MR. BAX: Well, my experience with the
15 open houses and public sessions all the way from, you
16 know, the formal ones the MNR carries on to ones that
17 I've been involved with through the Canadian Institute
18 of Forestry, the professional association, the
19 strategic land use planning open houses, all these
20 ones, you always have one or two people that are very
21 knowledgeable and --

22 MR. MARTEL: I didn't suggest that they
23 weren't knowledgeable. I want to know who wants to
24 change the forest.

25 MR. BAX: Well, I guess the example from

1 my experience is there's usually one or two in these
2 open houses that ask exactly the type of question
3 you're asking. There are some people that have, you
4 know, a very narrow focus, but very extremely
5 knowledgeable. You do run into them though.

6 MR. MARTEL: Where do they come from
7 though, what segment of society are we talking? Are
8 these individuals, are they a guy out there cutting
9 trees for a living, are they an academic?

10 I mean, what public are we talking about
11 that wants all of this?

12 MR. BAX: You know, I don't know who they
13 were but my impression, you know, they come from all
14 life, you know, you get your classical tree hugger,
15 what we call tree hugger.

16 MR. MARTEL: I wouldn't use the term.

17 MR. BAX: All the way to your very
18 concerned informed people.

19 MR. MARTEL: But the majority of the
20 public would like -- is it your experience that the
21 majority of the public wants to see a forest back as
22 close to what was there previously and not try to alter
23 nature too much?

24 MR. BAX: No.

25 MADAM CHAIR: I don't like to interrupt,

1 but I think Mr. Hanna's question had to do with the
2 maintenance of natural diversity and not the production
3 of a different kind of forest.

4 MR. MARTEL: That's what we were drifting
5 into.

6 MR. HANNA: I am happy.

7 MR. MARTEL: I was afraid of the drift.

8 MR. CASSIDY: We get the drift.

9 MADAM CHAIR: Let's move on.

10 MR. HANNA: Yes, Madam Chair.

11 Mr. Martel, just so that it is clear on
12 the record, we are trying -- the whole purpose of the
13 Coalition's proposals on biodiversity is to ensure
14 exactly what you said, that the forest that we have now
15 is the forest that we have in the future. So there's
16 no misunderstanding.

17 MR. MARTEL: All right, thank you. I
18 feel better with that.

19 MR. HANNA: Q. Now, Mr. Bax, you
20 mentioned that this is - and it's Interrogatory No. 18,
21 I don't think you need to look it up - this was an
22 interrogatory regarding succession and descriptions of
23 succession and you said it should be modeled rather
24 than described.

25 I'm not going to quarrel with that. The

1 question is simply this: Do you agree that it would be
2 a useful and valuable step to carry out the development
3 of those types of models to do it through an adaptive
4 management approach?

5 MR. BAX: A. Yes, absolutely.

6 MR. HANNA: Panel, I appreciate your
7 patience, Ms. Dahl particularly you. I'm sorry to have
8 given you so much of the questions, but you're an
9 important witness and I apologize for being in such bad
10 shape for them, but I appreciate your patience.

11 Thank you, Madam Chair.

12 MADAM CHAIR: Thank you, Mr. Hanna. We
13 will take our lunch break now and we will begin with
14 you this afternoon, Mr. Cassidy.

15 MR. CASSIDY: Yes.

16 MADAM CHAIR: We will be back at -- how
17 long will you be this afternoon, Mr. Cassidy?

18 MR. CASSIDY: If I were to suggest that
19 we come back at a quarter to two, with the Board's
20 indulgence I may be able to finish today, if we were to
21 go a little bit later in the day, but not significantly
22 later.

23 MADAM CHAIR: All right. We will be back
24 at 1:45.

25 ---Luncheon recess taken at 12:25 p.m.

1 ---On resuming at 1:45 p.m.

2 MADAM CHAIR: Please be seated.

3 MR. CASSIDY: Thank you, Madam Chair.

4 CROSS-EXAMINATION BY MR. CASSIDY:

5 Q. I think you all know me as the
6 counsel for the OFIA. Mr. Neary, I was interested in
7 your witness statement and, without having to go to it,
8 you indicated in your witness statement that in the
9 original 1985 EA document -- if you wish to go to it
10 it's at page 6 of your witness statement.

11 You indicated there that in the original
12 EA document, in 1985, full-tree logging was described
13 as comprising 15 per cent of the harvest, and then in
14 1988 it had risen to 65 per cent of the harvest and may
15 now be even higher.

16 And I noted in your written material that
17 your support for suggesting it may now be even higher
18 is the article in your reference book, the CPPA
19 conference, where it was indicated that full-tree
20 logging may now be as high as 90 per cent of logging
21 activity.

22 MR. NEARY: A. Yeah. It's a little bit
23 confusing in there. If you turn to Tab 1 of Exhibit
24 2200B, on page 2 it says full-tree logging - that's the
25 reference book for our thing - it says currently it

1 counts for 90 per cent of the timber harvest.

2 Q. Right. And that's where you --

3 A. No.

4 Q. Go ahead.

5 A. May I just finish. Yeah. On page 5
6 it has a bar chart for the central region, which Mr.
7 Bax advises me includes Ontario, and the bar chart
8 there indicates that full-tree is about 80 per cent
9 based on the bar chart.

10 Q. Somewhere between 80 and 90 per cent
11 is a figure you would rely on for current numbers?

12 A. That's the best information I have.

13 Q. And it started in 1985, your figure
14 you used was 15 per cent?

15 A. Yeah, that was based on the
16 references, as I say.

17 Q. Right. I want to just -- I think I
18 provided you with a copy of this document, I want to
19 provide a copy to the Board now. (handed)

20 MR. CASSIDY: And you're going to have
21 to find room to mark the exhibit number on there, Madam
22 Chair, in the white portion.

23 This is a document, for the record, which
24 is 1989 Statistics from Ontario's Forest Products
25 Accident Prevention Association and it is, including

1 the cover page, a five-page document that I want to ask
2 you some questions about, Mr. Neary.

3 Perhaps we could mark this as the next
4 exhibit.

5 MADAM CHAIR: This will be Exhibit 2218.

6 ---EXHIBIT NO. 2218: Five-page document entitled: 1989
7 Statistics from Ontario's Forest
8 Products Accident Prevention
Association.

9 MR. CASSIDY: Q. Now, if we look at the
10 first graph in this Exhibit 2218, which is the second
11 page in, Mr. Neary, you'll see it's titled: Compensable
12 Injuries by Rate Group, and if you look at the bar
13 chart for the reference of logging you'll see that in
14 1985 there were 1,376 logging injuries and by 1989
15 there was 601.

16 MR. NEARY: A. Yes.

17 Q. And would you agree with me that over
18 the same course of time as we've seen a rise from 15
19 per cent in 1985 of full-tree harvesting to the 80 and
20 90 per cent figures that you've discussed as current or
21 at least until 1989, would you agree with me that
22 there's been a corresponding decline in the number of
23 injuries in logging as evidenced by that graph in
24 Exhibit 2218?

25 A. I would agree that there is a

1 decrease in the number of injuries. Are you implying
2 causality?

3 Q. Well, I'm going to suggest to you
4 that in fact it's a direct result of mechanical
5 full-tree harvesting that is causing that decline, sir,
6 and I would like you -- unless you want to make a
7 comment on that now before I move to the next portions
8 of Exhibit 2218 to demonstrate that.

9 A. No, I will...

10 Q. Okay, let's move on--

11 A. I'll go with you.

12 Q. --then to the next page. In 1989,
13 the next page of Exhibit 2218, on the next page we see
14 conventional logging, just for this one year 1989, as
15 creating a total of 259 injuries, that's the number at
16 the lower bottom righthand corner, and when you add
17 that together with the logging and skidding on the next
18 page you have approximately 360 injuries.

19 A. Mm-hmm.

20 Q. Whereas you have the mechanical
21 logging, which is full-tree, being felling, delimbing
22 and slashing adding up to a total of 32 injuries.

23 And I suggest to you that in fact there
24 is a distinct relationship between logging
25 conventionally, which your term and condition seems to

1 suggest should take place, and full-tree harvesting
2 showing a direct decline in the number of injuries.

3 A. Well, I discussed this exhibit over
4 the lunch hour--

5 Q. With who?

6 A. With Mr. Bax.

7 Q. Go ahead.

8 A. And perhaps he has some information
9 that would be relevant to the Board on this matter.

10 Q. So you have no comment on this?

11 A. Outside of accepting your additions.

12 Q. All right.

13 A. And accepting the fact that there
14 appear to be fewer injuries associated with mechanical
15 logging systems than what could be termed more
16 conventional logging systems.

17 Q. Given that you don't have any more
18 comment then, is it fair to say that when you made your
19 comments and your suggestions about, that there should
20 be restrictions on full-tree harvesting, that you did
21 not take into account these safety features and safety
22 factors when making those suggested recommendations to
23 this Board?

24 A. No, we did not recommend against
25 mechanized logging systems, we recommended against

1 systems which removed nutrient-bearing material from
2 sites which we consider to be nutrient limited.

3 Q. So it's your position that mechanized
4 logging and full-tree harvesting are somehow different?

5 A. They can be. I'm advised that they
6 can be.

7 Q. Do you know of any tree length or of
8 any form of non-mechanized logging in Ontario that
9 removes the limbs to the roadside?

10 Mr. Bax, you might be able to answer
11 that.

12 A. Ask the question again. Do I know of
13 any mechanized method that removes--

14 Q. Do you know of any -- all right.
15 Well, let me ask you this question. Is it your
16 position that mechanized logging and full-tree logging
17 are not the same thing?

18 A. That's right.

19 Q. I see. Now, why do you take that
20 position?

21 A. Well, you can have mechanized tree
22 length, you can have mechanized cut to length, in fact
23 the trends from your own minutes from CPPA would
24 indicate an increase coming with cut to length which is
25 fully mechanized, and I did have a chance to go through

1 the documentation and...

2 MR. NEARY: A. Could we direct the Board
3 to that. Behind our Tab 1 of Exhibit 2200B, page 5,
4 you can see in the top bar chart there's a significant
5 component in the Atlantic area of cut to length and on
6 the bottom area, the central, there's a projected
7 increase of cut to length in the central region.

8 Q. Well, if I look at that chart, Mr.
9 Bax, it suggests to me that this sort of cut to length
10 that you're talking about is in fact a very small
11 amount and that in fact a great amount of full-tree is
12 done by mechanized logging.

13 MR. BAX: A. The trend would seem to
14 indicate for the central section, that's correct. But
15 the Atlantic provinces it's close to 50 per cent --

16 Q. Sorry, we're in the area of the
17 undertaking, it's Ontario, it's not the Maritime
18 provinces.

19 Would you agree with me, Mr. Bax, that by
20 far the amount of mechanized logging which occurs in
21 this province is full-tree logging?

22 A. Yes.

23 Q. Then let's get to the point. Would
24 you agree that mechanical logging as discussed in that
25 chart in Exhibit 2218 is full-tree harvesting and it

1 cannot be anything but since that's what's carried on
2 in this province not in the Maritimes?

3 MR. NEARY: A. The point I guess
4 we're --

5 Q. No, no, I'm interested in Mr. Bax'
6 answer.

7 A. I'm sorry.

8 MR. BAX: A. First of all, the
9 mechanical logging where it's felled, delimbed or
10 slashed can also occur with the tree length system as
11 well as the cut to length system.

12 Q. It may very well, sir, but I'm
13 suggesting to you that that bar chart that your fellow
14 witness Mr. Neary referred to clearly indicates that
15 full-tree harvesting is the form of mechanical logging
16 in this province and it's essentially one in the same
17 thing.

18 A. No, but if you add up -- if you look
19 at the full tree roundwood or tree length -- tree
20 length roundwood, tree length chips and cut to length,
21 your projected increase from your own data, that will
22 come to 20, 20 and approximately 5, that's 45.

23 Q. That's not my data, sir. I didn't
24 file this, you did.

25 A. Well, you're using it, I mean -- the

1 point I'm making is your projection is full tree is
2 going to decrease down to about 50 per cent and the
3 other mechanized systems are going to fill that void;
4 is that not correct?

5 Q. Let's make one thing clear, sir. I
6 didn't use this document, you did, you filed it. What
7 I'm suggesting to you is, Mr. Neary to 80 per cent of
8 the full tree in Ontario, and I'm suggesting to you,
9 sir, that that's mechanical logging and it is in fact
10 wrong to suggest anything but to this Board.

11 A. Mechanical logging also includes tree
12 length and cut to length. That's all I'm saying.

13 Q. And it adds up to how much, about 10
14 per cent maybe?

15 A. Currently the projection, which is
16 the dark one, if you add it up comes to 45.

17 Q. I see.

18 A. And your full tree is going to
19 decrease, your roundwood is going to be projected down
20 to 50, and the chips is going to increase to -- I mean,
21 these are projections, no argument.

22 Q. Mr. Neary indicated that 80 per cent
23 was the figure he was relying on, not some projected
24 decrease, in fact his whole concern about this that he
25 comes before this Board is, is what the actual amount

1 is is 80 per cent.

2 MR. NEARY: A. My concern --

3 MR. MARTEL: I just can't follow where
4 we're going, I'm sorry. You have the figures and you
5 know where you want to go, Mr. Cassidy, but I can't
6 keep up with the verbal gymnastics at the rate you're
7 going.

8 MR. CASSIDY: I agree with you.

9 MR. MARTEL: And I'm just being lost.
10 I'm sorry, but we're jumping from here to there. You
11 know the documents you want to call, but I just can't
12 write down and try to pick up those documents at the
13 speed with which this is going.

14 MR. CASSIDY: I hear what you're saying,
15 Mr. Martel, because quite frankly I'm surprised that
16 Mr. Bax would not agree that the mechanical logging
17 that is referred to in Exhibit 2218 is in fact in
18 Ontario the great majority of the time full tree
19 harvesting, and I'm simply trying to get this witness
20 to agree -- both of these witnesses to agree that in
21 fact it's plain on its face there's a significant
22 safety factor involved in full-tree harvesting.

23 And I thought that was relatively clear,
24 and now we're getting into projections, we're getting
25 into discussions of the Maritimes, and perhaps I could

1 get some cooperation from the witnesses in that regard.

2 I totally agree with your concern.

3 It's not a difficult point.

4 MR. NEARY: No. After discussing this
5 with Mr. Bax I was left with the impression that you
6 could do mechanized logging which would give you your
7 increased safety factors and accomplish what we're
8 striving with our term and condition, which is to leave
9 nutrient-bearing material on what we consider to be
10 nutrient poor sites.

11 MR. MARTEL: Stop right there. Are you
12 talking about full tree or tree length. I mean, I
13 don't want to confuse it even more, but your concern is
14 that we should leave more of the leaves and all of that
15 closer to the site and not bring it to the road.

16 MR. BAX: Yes.

17 MR. MARTEL: And you're not suggesting
18 for a moment that you would not continue to do
19 mechanized logging, but where you would do the limbing
20 as opposed to the other would be -- your preference
21 would be nearer where the trees are taken as opposed to
22 bringing them to the road?

23 MR. NEARY: Correct.

24 MR. MARTEL: Still using mechanized
25 equipment.

1 MR. NEARY: I'm not saying that you have
2 to using mechanized equipment, I'm saying that is an
3 option.

4 MR. MARTEL: Yes.

5 MR. CASSIDY: Q. Fair enough. Will you
6 agree with me, sir, that you did not include safety
7 factors in deciding on putting forward the
8 recommendations to the Board that there be restrictions
9 on full- tree harvesting.

10 MR. NEARY: A. I will agree with that.

11 Q. Is there any reason why you didn't do
12 that?

13 A. Our mandate is 'environmental
14 protection and that was the focus which we took in
15 formulating this term and condition.

16 Q. Well, I read the Environmental
17 Assessment Act and that includes a lot more than
18 nutrient availability in terms of protection of the
19 environment.

20 A. Yes.

21 Q. Would you agree with me?

22 A. Yes, and there are other
23 environmental -- using that definition of the
24 environment, there are other environmental, broad
25 environmental considerations, for example, using

1 mechanized -- I'm advised that using mechanized harvest
2 system means fewer jobs in the woodlands operations,
3 and things like that.

4 Q. The only thing you considered in
5 making that recommendation was one part of an
6 environmental concern and that is with respect to
7 nutrient availability.

8 A. Yes.

9 Q. Now, I want to move, Mr. Neary, to
10 the issue of full-tree chipping. And you discussed
11 full-tree chipping with respect to -- again, I believe
12 term and condition 21(c) that you're making
13 recommendations for?

14 A. Yes.

15 Q. Okay. Now, you wrote your witness
16 statement in February, 1992, at least that's when it's
17 dated, February 20th.

18 I want to give you another document, I
19 think you already have a copy of this. (handed)

20 There's some sort of tradeoff I guess
21 that has to be made when you consider various parts of
22 environment, nutrient depletion may not be the only
23 one, worker safety may be important; right?

24 A. Yes, I would agree with that.

25 Q. You never made that tradeoff in

1 determining your suggestions for 21(c); did you?

2 A. Did we determine the tradeoff?

3 Q. You never made a tradeoff.

4 A. No.

5 Q. So I guess you didn't do an analysis
6 of the consequences on safety?

7 A. No, I did not.

8 Q. If we look at this document, in the
9 upper righthand corner it has: Roto-Lim, The New
10 Concept In Economical Delimbing. It's also described
11 as strong, lightweight, efficient, environmental
12 friendly.

13 MR. CASSIDY: Madam Chair, there doesn't
14 appear to be a date on this document, so perhaps we can
15 mark it as an exhibit without a date, 3 page exhibit
16 describing Roto-Lim, R-o-t-o - L-i-m.

17 MADAM CHAIR: This will become Exhibit
18 2219.

19 ---EXHIBIT NO. 2219: Three-page document entitled:
20 Roto-Lim, The New Concept In
Economical Delimbing.

21 MR. CASSIDY: Q. Now, Mr. Bill Roll was
22 a witness in this hearing, he's going to be a witness
23 again in reply on some of your evidence, and he sent me
24 this and he's going give me evidence about it, and he
25 tells me that this device, this Roto-Lim device which

1 is described on the second page has been put into place
2 with respect to the full-tree chipping operation of
3 Canadian Pacific Forest Products commencing in February
4 of this year.

5 And you'll notice in the second page
6 there's a description of the Roto-Lim and what it does,
7 and it indicates that it:

8 "Leaves branches and cones in bush."

9 And I'm looking at the bottom. Do you
10 see that, Mr. Neary?

11 MR. NEARY: A. Yes, I do.

12 Q. "Makes for excellent natural
13 regeneration."

14 I take it that you weren't aware of this
15 development in harvest method technology?

16 A. No, I was not.

17 Q. All right. Do you have any idea how
18 fast logging method technology evolves?

19 A. Not in a personal sense.

20 Q. You're not an expert in logging
21 methods; are you?

22 A. No, I am not.

23 Q. And if one were to want to evaluate
24 the impact of a particular form of harvesting one would
25 want to keep up to date on the type of technological

1 developments which may impact on those or may affect
2 that technology's impact; would you not?

3 A. Yes.

4 Q. And in fact if there was evidence
5 that technology is changing all the time, one of the
6 concerns would be that you would not want to have a
7 term and condition before this Board which is obsolete
8 before it's even passed; correct?

9 A. I think what you have to do is look
10 at the intent of the term and condition. The intent of
11 our term and condition is to minimize the removal of
12 nutrient-bearing material from a site.

13 I think that if there is a technology -
14 and I'm not familiar with, you know, the amount of
15 slash that's distributed or the way it's distributed -
16 that can accomplish that, then the way we describe
17 full-tree chipping obviously wouldn't apply to this
18 type of operation because our description of full-tree
19 chipping, and full-tree logging for that matter,
20 involved the deposition of a lot of the
21 nutrient-bearing slash material at a landing rather
22 than having it distributed.

23 Q. All right. Well, let's turn to your
24 term and condition 21(c).

25 A. Yes.

1 Q. And for ease of reference I think
2 it's on your page 7 of your witness statement.

3 A. Yes.

4 Q. I don't see anything in there which
5 allows for any form of technological development along
6 the lines of the Roto-Lim, you simply suggest that
7 full-tree chipping be restricted to stands supported by
8 relatively deep mineral soils.

9 A. Again, I think you have to look at
10 the intent of the term and condition, where we clearly
11 indicated that full-tree logging and full-tree chipping
12 operations involved removal of a lot of the
13 nutrient-bearing material.

14 Q. So you're suggesting that someone who
15 doesn't have the benefit of reading your evidence but
16 just gets a board order that says full-tree chipping
17 shall be restricted somehow has to go behind that and
18 look at the intent; is that what you're suggesting?

19 A. That rational environmental
20 management would dictate that that would be the case.

21 Q. I see. So that without -- you would
22 not want to put in a term and condition which allows
23 for technological developments, you don't have any
24 problem with the possibility that terms and conditions
25 may be obsolete and then require someone to go further

1 into intense, go behind an order?

2 A. No, I --

3 Q. You don't have any problem with that?

4 A. It says in the introduction that the
5 intent is to reduce nutrient losses. If there is a
6 technology which allows adequate mitigation of that, I
7 would be in support of that.

8 Q. But you don't have that in your terms
9 and conditions at the moment. I take it you're going
10 to suggest to Ms. Seaborn that the Ministry go back to
11 the drawing board and redraw their terms and conditions
12 to allow for that?

13 A. No, I'm not going to suggest that.

14 Q. You're not going to suggest that. We
15 have to combine that; do we?

16 MR. BAX: Madam Chair, can I make a
17 comment--

18 MADAM CHAIR: Go ahead, Mr. Bax.

19 MR. BAX: --just as I provided some of
20 the forest expertise. The Roto-Lim or its equivalent
21 has been around for as far as I've been in the bush for
22 the last 25 years. We've had means to dispose of the
23 limbs of the branch.

24 When I came back first in the bush we
25 hauled them through a cable and doing the same thing,

1 so that is not new technology.

2 The evolution of that were constantly
3 improving, but I think it's false to say all of a
4 sudden that this is a new innovative technology. It's
5 not, it's been there as long as I've been in the bush.

6 MR. CASSIDY: Q. Then why wasn't this
7 brought to the Board's attention by you in your concern
8 about full-tree chipping and full-tree harvesting?

9 MR. NEARY: A. As a matter of fact it
10 was. When we were discussing the terms and conditions
11 that we looked at in the Timmer, Savinsky and Marek
12 report, if you turn to page 9 of my evidence and in the
13 second paragraph, about halfway through, it says:

14 "The other Timmer, Savinsky and Marek
15 recommendation not included in MOE's term
16 and condition advocated the use of
17 bladers and delimbers on marginal sites.
18 It is MOE's understanding that at the
19 time of their report flailers and
20 delimbers operated at the stump thereby
21 distributing the nutrients across the
22 site in the slash and debris, whereas
23 current technology operates at the
24 landing, thus defeating the sense of that
25 recommendation."

1 Q. Mr. Bax, you would disagree with that
2 research done then by Timmer and Savinsky that there
3 was technology operating at the landing; is that what
4 your evidence is?

5 A. No it was Mr. Bax' advice to me that
6 he was not aware of this type of delimbing operation in
7 the bush.

8 Q. Mr. Bax, my understanding from Mr.
9 Roll - and he'll testify about this - is that the
10 concept of putting together the Roto-Lim with the
11 chipper is brand new since chipping is brand new.
12 Would you agree with that?

13 MR. BAX: A. Absolutely.

14 Q. Well, that's what I'm talking about.

15 A. No, but you can also --

16 Q. Don't interrupt me, I won't interrupt
17 you.

18 A. Okay.

19 Q. I was talking about the concept of
20 full-tree chipping. You all of a sudden went back into
21 things that happened 25 years ago.

22 A. Accomplishing the same thing.

23 Q. And I suggest to you, sir, that
24 there's been no reference in your terms and conditions
25 to the form of technology that evolves through time and

1 the uses of that technology that render your term and
2 condition obsolete?

3 A. Well, you're dead wrong. That's
4 exactly what we're doing there. We acknowledge that,
5 for example, in the 70s when we tried flail delimbers
6 that has moved out, we tried it, it didn't work. We
7 had -- before we had flail delimbers, we had the other
8 types of delimbing devices in the bush.

9 Q. So your reference to full-tree
10 logging in term and condition 21(c) somehow has it in
11 there that full-tree chipping operations can be
12 permitted where they put nutrients back on to the
13 soils? Sorry.

14 A. That was our concern, that the cone,
15 the branches and the nutrient-carrying needles remain
16 on the site, that's correct.

17 Q. And where does it, in your term and
18 condition -- where is it in your term and condition
19 that you allow any flexibility to use mechanisms that
20 in fact are like the Roto-Lim in combination with
21 chipping?

22 Where is it in that language? That's
23 going to be a legal requirement, okay, we're not
24 talking about guidelines, we're talking about a legal
25 requirement. Where is it?

1 MR. NEARY: A. It could probably be
2 incorporated by an agreed upon definition of what
3 constitutes full-tree chipping and full-tree logging.

4 Q. And then I suggest you go back to the
5 drawing board and do that before you come to this Board
6 with terms you don't even understand.

7 A. We do understand.

8 MS. SEABORN: Mr. Cassidy, I don't think
9 it's fair to make those kind of comments to the
10 witnesses, they are talking about terms they don't
11 understand. That's really uncalled for.

12 MR. CASSIDY: Q. Now, I want to turn to
13 you briefly, Ms. Dahl. We were talking about
14 bump-up -- you were talking about bump-up, and we had
15 an overhead from you in your collection of overheads -
16 and that I think is Exhibit 2215, Madam Chair.

17 And it's overhead No. 4, Ms. Dahl. And
18 in that overhead you have a total of 20 bump-up
19 requests since 1988.

20 I think your evidence was that in some
21 way you felt that was a comment on how well the timber
22 management planning process was working; correct?

23 MS. DAHL: A. I think I indicated that
24 bump-ups are a comment on how well a planning process
25 is working. I don't recall specifically referring to

1 timber management.

2 Q. Is it a comment is the number 20, can
3 you make any comment on how the timber management
4 planning process is working in light of that number 20?
5 Are you making any comment?

6 A. I think the only comment you can make
7 is the general comment that there are obviously
8 concerns with timber management

9 Q. 20 concerns?

10 A. 20 that resulted in a bump-up request
11 to the Minister.

12 Q. Right. Do you have any idea of the
13 proportion of that, what 20 is in proportion to the
14 number of timber management plans, the number of timber
15 management activities within those plans, the number of
16 pest management plans, the number of major amendments
17 which have occurred since 1988?

18 A. It's my understanding, I think from
19 recollection, that there's probably been in the area
20 of, I believe, about 70 timber management plans
21 prepared during that period.

22 Q. What about all the other things, Ms.
23 Dahl, that everybody can request a bump-up from, each
24 specific timber management activity, for example. Do
25 you have any idea how many of those have occurred since

1 1988?

2 A. In terms of specific activities, I
3 don't think I can comment on that, no.

4 Q. And one can request a bump-up of a
5 specific activity; could one not?

6 A. It's possible, yes.

7 Q. In fact, it's in the terms and
8 conditions which you're submitting that you can request
9 a bump-up from a specific timber management activity,
10 and you have no idea how many of those there are that
11 have occurred since 1988; do you?

12 A. No, I wouldn't say so.

13 Q. You have no idea?

14 A. That I have an idea of the actual
15 numbers, no.

16 Q. All right. So in fairness then, you
17 cannot compare the number 20 to any number to give us
18 an idea of how many it is out of the grand total, it
19 could be 20 out of 20,000 possible opportunities for
20 bump-up; correct?

21 A. It could be. I think the point is
22 just that it could be less as well.

23 Q. Well, in fact, it is the evidence --
24 I think even Mr. Neary was quoting a filing, that there
25 are some 200,000 hectares harvested annually - and just

1 to use Mr. Neary's figure because I think he's picked
2 it from earlier evidence, that's fine - there's 800,000
3 hectares that have been affected in four years, and
4 there are activities -- we have four activities - need
5 I rhyme them off - that could occur on each one of
6 those and there's only been 20 timber management
7 bump-up requests, and you're saying it could be less
8 than 70 in total?

9 A. 70 timber management plans.

10 Q. Right. So in fact we have no idea
11 what the 20 relates to that we can comment on whether
12 or not the process is working or not working just by
13 the virtue of the fact of 20; can we?

14 A. We can just comment that in those
15 instances it may not have been working as well as it
16 could.

17 Q. In those instances. Thank you. Now,
18 I'm interested in this timetable discussion. You got
19 into a discussion of the need for more than 45 days
20 from the date of the last opportunity or the date of
21 the request, that the Minister somehow is going to need
22 45 more days to make a bump-up decision.

23 Can you explain to me what those reasons
24 are again, or that they may need more than 45 days?

25 A. I'm not sure what you're referring

1 to, which portion of the evidence.

2 Q. Well, I'm referring to Mr. Martel or
3 Ms. Koven's question where they were wondering about
4 the fact that there does not appear to be a deadline on
5 the Ministry of the Environment to have their decision
6 back on bump-up within 45 days, and I guess it's your
7 suggested amendment to Appendix 15.

8 I think it was Mr. Martel who was looking
9 at this matter.

10 MADAM CHAIR: No, it was my question, Mr.
11 Cassidy.

12 MR. CASSIDY: I see.

13 MADAM CHAIR: And the line had been
14 deleted from the Ministry's term and condition.

15 MR. CASSIDY: That's right.

16 Q. I guess you took out that 45 --

17 "A response to the request will be
18 provided by the

19 Minister of the Environment within 45
20 days after

21 the 30-day period", and you deleted that
22 and I'm just --

23 MS. DAHL: A. Okay, from the public
24 notice. From the public notice, yes.

25 Q. Okay, whatever. You don't have a

1 time frame limiting you to say the Minister's got to
2 have his decision in.

3 A. There's still a time frame in the
4 bump-up terms and conditions. This particular
5 amendment refers to the public notice at stage 4.

6 Q. Is the Ministry of the Environment
7 then committing, and if so tell me where, to have the
8 response to the bump-up request in by a certain time
9 frame?

10 A. I believe the term and condition says
11 that the response will normally be made within 45 days
12 of the end of that period.

13 Q. It doesn't say will be made; does it?

14 A. No, it doesn't.

15 Q. So in fact it leaves an out for the
16 Ministry to go beyond 45 days?

17 A. It's possible, yes.

18 Q. Or 30 days. Why is that? After
19 you've had the whole planning process go through for
20 probably two years, you've had all this input prior,
21 you can't make a decision or you might not be able to
22 make a decision within 45 days or 30 days?

23 A. I think, as I explained yesterday,
24 there may be circumstances where the information
25 necessary for the Minister to make that decision may

1 not be received in time to allow for that decision.

2 There are other things which may come
3 into play. For example, if the Minister decides that
4 the issue should be referred to the Environmental
5 Assessment Advisory Committee, it may take longer than
6 that 45 days.

7 Issue resolution may be under discussion,
8 there may be a potential solution to the concern and,
9 as I explained yesterday, the Ministry would want to
10 see that through before making a decision because it
11 would be preferable to come to an agreeable solution
12 than have the Minister impose a decision.

13 Q. So short of referring it to EAAC
14 you're saying that it's just not bureaucratically
15 possible to commit yourself to doing it within 45 days;
16 is that what you're saying?

17 A. I'm saying that there may be other
18 things that come into play that will result in it
19 taking longer than 45 days to make a decision. The
20 intention is just not to -- I guess it's to recognize
21 that possibility.

22 Q. So after all of the planning process
23 has been gone through you still need more than 45 days
24 as a possibility if you're not going to refer it to
25 EAAC, and I understand the referral to EAAC may

1 necessarily draw it out?

2 A. The planning process itself does take
3 that long time. The request may not be made until near
4 the end of the process, the Ministry may not become
5 aware of the concerns until closer to the end of the
6 process, so the Ministry or the Minister may not have
7 had the benefit of that two years or whatever to
8 understand all of the issues and concerns on what's
9 gone on.

10 Q. That process hopefully will have
11 narrowed the issues down so that you're not looking at
12 the whole issues, you're just looking at some fairly
13 discrete issues. Would you agree with me?

14 A. Oh yes.

15 Q. Well then -- and that still can't be
16 done within 45 days. The reason I ask you is, you
17 know, we've heard this complaint and my clients have
18 this complaint, things get left up in the air and it's
19 a little hard for the normal public - and I hesitate to
20 use that word, Mr. Martel - but it's very hard for my
21 clients to understand.

22 MR. MARTEL: You've identified your
23 public though, your client, there's a difference.

24 MR. CASSIDY: I acknowledge that, but
25 there are a large segment of the public that came

1 forward before this very Board and argued the same
2 thing and it wasn't one or two individuals.

3 Q. It's a little hard to understand, Ms.
4 Dahl, and what you're telling me is that it might be
5 EAAC, that's fine, but the rest sounds like a
6 bureaucratic problem. Why don't you commit to doing it
7 in that period of time?

8 MS. DAHL: A. As I said yesterday, the
9 Ministry has every intention of attempting to make the
10 decisions within that 45-day period and they're just
11 may be exceptions to that.

12 Q. Have you ever heard anything about
13 people who invest in this province would like some
14 certainty? Does that enter into the factor at all. I
15 guess we just laugh that off; do we?

16 A. There are two other class EAs for
17 municipal projects which do have a 45-day time limit on
18 the bump-up request, and it's my understanding that
19 there are occasions where that time limit simply can't
20 be met for reasons that were not anticipated, and it
21 doesn't guarantee that there will be a decision in that
22 time period.

23 It's the Ministry's intention to make it,
24 but there are always those cases where it just can't be
25 done.

1 Q. All right. Perhaps we can move on
2 then to page 7 of your witness statement, that is Tab
3 2, Madam Chair, of Exhibit 2200A -- I'm sorry, Tab 3.

4 MADAM CHAIR: We're on Tab 3, Mr.
5 Cassidy?

6 MR. CASSIDY: Yes.

7 MADAM CHAIR: Which page?

8 MR. CASSIDY: Page 7.

9 Q. And I think Mr. Hanna cleared
10 something up in my mind. When we refer to the harvest
11 areas in the very last paragraph of page 7 we're
12 talking now about documenting the options. You use the
13 word harvest areas there, and then you go into your
14 suggested term and condition and you talk about areas
15 allocated for operations.

16 But I think you told Mr. Hanna that it's
17 all the activities, it's not just the harvest that have
18 to have the alternatives set out for them; is that
19 right?

20 MS. DAHL: A. No, the decision -- I'm
21 sorry, the proposal that MOE's put forward focuses on
22 the harvest decision, but those other activities are
23 obviously a consideration in that decision. You can't
24 isolate harvest from the other activities.

25 Q. So you're going to have to do this

1 alternative planning for not one activity but all four;
2 is that right, of the major timber management
3 activities we've talked about for the last four years?

4 A. No, this particular proposal relates
5 to the harvest allocations, but in determining the
6 advantages and disadvantages of operating in different
7 areas you obviously have to consider renewal and
8 maintenance considerations and access.

9 Q. All right. Well, term and condition
10 that you want to graph on to Appendix 4 - it's on page
11 10, Madam Chair - talks about:

12 "A brief description of the advantages
13 and

14 disadvantages of options considered for
15 allocation."

16 I'm reading the underlined portion there,
17 Madam Chair. That's where I'm getting confused,
18 because that sounds to me like a lot more than harvest.
19 In other words, you have got to do these alternatives
20 for each and every one of the four major activities
21 which are operations.

22 Can you help me?

23 A. I think, as I explained in the
24 example, we're focussing on the harvest decision in
25 this term and condition, however, if there were options

1 that were considered for those other activities that
2 could be, I guess documented on the map or discussed,
3 it wouldn't preclude you from doing that.

4 Q. Well, that's fine. I want to know
5 whether the MOE is suggesting that for each one of
6 those four activities you have to set out an
7 alternatives system such as you've done with your
8 example. Is that what the MOE wants?

9 A. We're asking for the description of
10 advantages and disadvantages, the areas considered
11 primarily -- it's the -- I think the terminology in the
12 MNR condition term and condition is the areas selected
13 for operations but, as I explained, we're focussing on
14 that harvest decision, so I think it would be options
15 for the harvest areas.

16 Q. All right. Because I'm confused by
17 that term and condition then because it talks about
18 more than harvest, it talks about areas allocated for
19 operations which is more than harvest, operations
20 includes all four activities I thought.

21 So are you going to reword that term and
22 condition to just say harvest areas and the harvesting
23 activity?

24 A. No because, as I said, if there are
25 options considered for the other activities, then you

1 should show them to the public.

2 Q. All right. Well, Mr. Bax showed us
3 all the options that might occur, for example in
4 renewal; planting, seeding, natural, so if those
5 options exist, are you saying we've got to go through
6 that alternative planning by the first information
7 centre as well?

8 MR. BAX: A. Madam Chair, if -- you
9 know, they wouldn't occur unless you harvest. So
10 you're not going to show an option for renewal or
11 maintenance where you didn't harvest. I mean, I don't
12 understand the point you're getting at.

13 Q. Do you always harvest and renewal in
14 the same five-year plan, Mr. Bax; is that your
15 evidence?

16 A. Everything you harvest you're going
17 to renew or maintain in one way or another, artificial
18 or naturally. That's the point they're making here.

19 Q. Within the same five-year plan?

20 A. No, obviously not, there's a lag
21 period there.

22 Q. You may in fact not be planning to
23 any regen in one five-year plan and you may do it in a
24 subsequent part of your five-year plan?

25 A. Absolutely.

1 Q. And in fact tending may in fact occur
2 or not occur?

3 A. 20, 40, 60 years afterwards.

4 Q. So in fact there are areas where you
5 may only be doing one activity?

6 A. But I believe this criteria that
7 they're looking at is -- at the stage they're looking
8 at, deals primarily with the initial activity which is
9 harvest.

10 Q. All right. So we're clear that we
11 only have to do this alternatives planning with respect
12 to harvest; is that the MOE's evidence now?

13 MS. DAHL: A. Yes, that's the proposal
14 that we're putting forward, you show the options
15 considered for the harvest activity.

16 Q. So you will take out the reference to
17 areas allocated for operations and put in reference to
18 harvest areas; right?

19 I've got to know what they're going do,
20 Madam Chair.

21 MS. DAHL: I don't think it's necessary
22 to make that change to the term and condition. I think
23 it's clear what we're talking about.

24 MADAM CHAIR: Obviously it's not clear to
25 Mr. Cassidy and his clients. I think the best way of

1 handling this is to have an undertaking from Ms.
2 Seaborn that you'll report back to -- you'll have
3 discussions with Mr. Cassidy about this matter and
4 report back to the Board on what the resolution of it
5 is.

6 MS. SEABORN: That's fine, Madam Chair.

7 MR. FREIDIN: Madam Chair, I need that
8 resolution because I'm confused as well and I wanted to
9 cross-examine on this matter and if it's not clarified
10 it's an important issue to my client as well.

11 So it's not an undertaking which will be
12 helpful to us if it comes later in cross-examining
13 these witnesses.

14 MR. CASSIDY: Can I also ask another line
15 of questioning that relates to this.

16 Q. I need to know what geographical area
17 you're talk about. When you say harvest area, what are
18 you talking about, stands, blocks, the whole unit that
19 we have to do this alternative planning at the very
20 first information centre?

21 MS. DAHL: A. It's a general analysis.
22 So we're just talking about general areas within the
23 forest management unit, it's not that detailed that it
24 would come down to the specific stand level that they
25 would each be identified separately.

1 Q. Well, if you look at the example -
2 and I know you said this was an unrealistic example,
3 and maybe you can explain what you meant by that
4 because maybe that's where we're having the real
5 difficulty here - but on page 8 and 9 you talk about
6 alternative area A and alternative area B. Well,
7 what's the area?

8 I mean, you see the allocation
9 eligibility -- I mean, what are we supposed to be doing
10 this alternative for? You say generally, or is it just
11 an individual stand or what is that area?

12 A. It would be a general area within the
13 forest management unit. It might be a grouping of
14 stands in the same vicinity as opposed to another area,
15 you know, so many miles away.

16 Q. Okay. Is somebody going to tell us
17 that, what it is?

18 A. I think it's going to depend on the
19 specific situation, the forest management unit you're
20 dealing with and the configuration where you have those
21 eligible areas.

22 If they're all focused in one area, then
23 maybe there's just that one area, but if there's groups
24 of them spread out around the unit, then that's what
25 you look at. It depends on the specific situation.

1 MADAM CHAIR: Well, the areas eligible
2 for harvest of course are selected and identified in
3 advance of this part of the process. I mean, if we go
4 to the map --

5 MS. DAHL: Yes, eligible areas are
6 identified, right.

7 MADAM CHAIR: And Mr. Cassidy wants to
8 know, if those eligible areas, obviously they're
9 identified and they can be traced back to stands --
10 specific stands from the mapping presumably.

11 MR. CASSIDY: The eligible areas, as I
12 understand on that map, are a significant portion of
13 that map.

14 Q. Are you suggesting that we've got to
15 do this alternatives for every single eligible area?

16 MS. DAHL: A. No.

17 Q. You're going to have a plan that's
18 15,000 volumes.

19 A. As I said yesterday, it's eligible
20 areas which also meet your selection criteria and which
21 are legitimate options for where you can conduct your
22 harvest operations.

23 MR. MARTEL: Are we talking the five
24 years?

25 MS. DAHL: Yes.

1 MR. MARTEL: What you're going to look at
2 over five years and not the whole unit then?

3 MS. DAHL: Yes.

4 MR. MARTEL: It would be the area
5 considered to be allocated for operations over the next
6 five years?

7 MS. DAHL: Right.

8 MR. MARTEL: Which reduce it I think
9 significantly but you would like to have that --

10 MADAM CHAIR: I think Ms. Dahl's evidence
11 from yesterday was that in the event you wanted to
12 speed up or delay the area of operations, you would
13 have to know farther out than five years which areas
14 might be eligible.

15 In other words, if you wanted to exchange
16 a specific harvest area in the first five years for one
17 maybe two plans down the road, you would be able to do
18 that?

19 I thought that was your evidence
20 yesterday. that you had said there would be some
21 substitution over the 20-year period for areas that
22 were eligible in the five-year plan?

23 MS. DAHL: No. I think what I said was
24 that if you decide not to operate in a particular area,
25 that doesn't mean that you'll never operate there. It

1 may come back into consideration when you're preparing
2 your next plan or another plan down the road.

3 I don't think I meant to say that you
4 would be considering it at this point what your
5 eligible areas in 10 or 15 years are going to be, that
6 you would be making those sort of switches. It's just
7 looking at the areas available for your next five-year
8 period and determining where you're going to focus your
9 operations in that five-year period. That's what the
10 focus is.

11 MADAM CHAIR: And that decision is the
12 decision of the forester in proposing those eligibility
13 areas, and the selection or mix of specific areas, the
14 public can have some input into that?

15 MS. DAHL: Yeah, that's what we're
16 proposing. I would -- it's my understanding that I
17 think it would be the forester as well as the planning
18 team who may, on the forester's advice, who would look
19 at if there are options available, where they're going
20 to focus and we're just asking that the public have
21 some understanding and input into that.

22 MR. CASSIDY: Q. So at the first
23 information stage, we have to come to the first
24 information centre, the first time for the public to
25 see it with the selection criteria already -- the areas

1 that we want to operate in already set out at that
2 point with alternatives for each one of those, already
3 set out at that point, before the public has ever seen
4 the plan, the public at large?

5 MS. DAHL: A. No, that's not what we've
6 said.

7 Q. Well, that's what your term and
8 condition suggests 2(a)(vi) you've added that on.

9 A. The available options would be shown
10 and at the discretion of the plan author you could
11 identify which are the preferred ones. That's
12 optional, it depends on what is appropriate in that
13 circumstance.

14 Q. But all of the options have to be
15 shown at the very first stage; right?

16 A. Yes, but the way it's proposed now
17 you've gone beyond that and you're just showing the
18 selected areas. This is intended to sort of bring in
19 the public input a little bit sooner before you've made
20 that decision on the selected areas.

21 Q. What are all the available options on
22 the first map?

23 MS. SEABORN: What do you mean by the
24 first map, Mr. Cassidy?

25 MR. CASSIDY: Q. Well, the map that

1 you're going to show at the first information centre,
2 the eligibility map.

3 MS. DAHL: A. No. The options we
4 proposed yesterday would be shown on the summary map--

5 Q. All right, summary map.

6 A. --not the eligibility map. And that
7 was what I demonstrated on the flip chart, just the
8 areas that are eligible and meet your selection
9 criteria and could legitimately be operated in.

10 Q. Well, if they're eligible areas you
11 could -- without indicating a preference, you could
12 potentially operate in any of them, it would be your
13 preference which would indicate where you might want to
14 operate, but if they're eligible areas you could
15 operate anywhere. So you have your whole eligibility
16 map would be your options.

17 A. Well, it's my understanding that you
18 have certain selection criteria that those eligible
19 areas would meet for that five-year period and that's
20 how you determine specifically where you want to
21 operate for the five-year period. So I don't think it
22 would consist of all eligible areas over the 20-year
23 period in the forest management unit.

24 Q. All right. So if we get -- go ahead,
25 Mr. Martel.

1 MR. MARTEL: Just one other thing that
2 worries me. I thought you said yesterday when we came
3 to the first information centre, so that the public
4 wouldn't be of the belief they were simply rubber
5 stamping, we weren't going to indicate the preferred
6 option so that there would be input by the public
7 leading to the ultimate decisions that might be
8 reached.

9 - But we say here we want the preferred
10 description identified, or preferred option identified.

11 MS. DAHL: It's MOE's preference that
12 that not be done at this stage, but recognizing that
13 there are some concerns with that in that, in some
14 cases, the planning team may want -- the public may
15 want to know what the preference is, that you can
16 identify that, we didn't want to restrict that
17 possibility. So it's up to the local area to decide.

18 MR. MARTEL: But it defeats what your
19 purpose was which --

20 MS. DAHL: Not necessarily. I mean, the
21 purpose of that information centre is to generate
22 comment on the alternatives, and once the public sees
23 them and comments on them, they may present a good case
24 to change what that preference is.

25 MR. CASSIDY: Q. But how do you address

1 Mr. Martel's observation which has been the observation
2 of a number of witnesses at the satellite hearings, et
3 cetera, that when you set out your option at the first
4 information centre and a person comes in and he says he
5 doesn't like any of those options and then he goes away
6 and comes back and one of the options is nevertheless
7 still chosen and he says: Ah, the fix was in, it was in
8 that -- I didn't make any headway.

9 How do you address that? Not even by
10 setting out your preferred option, just by setting out
11 options you're going to have that situation. And how
12 do you address that at the very first information stage
13 before anything else has happened?

14 MS. DAHL: A. Well, you have your basic
15 criterion objectives that your options have to be
16 capable of meeting. It may be the case that there's
17 someone that doesn't like any of the options, but I
18 don't think that the solution is to just pick the
19 preferred areas, present them to the public and not
20 allow any input into that to avoid that possibility.
21 Anything's possible in public consultation.

22 Q. So do agree with -- do you agree or
23 disagree that there is a risk that if you've set the
24 options out at the very first stage, let alone saying
25 which is your preferred option, you run the risk of

1 members of the public thinking that, Ah, the fix is in,
2 if they make a suggestion and none of those option are
3 applicable or the best, and they're nevertheless
4 chosen. Do you agree with me that that's a risk, that
5 that attitude might be generated in the public?

6 A. I don't think that presenting the
7 options is going to generate that attitude, but there
8 may be people who aren't going to like the decision no
9 matter what it is. That's accepted.

10 Q. Have you ever had any experience at
11 open houses with options like that being presented and
12 then people coming back and saying: You still never
13 chose my option, I'm unhappy with the process.

14 A. Not personally, but I'm aware of
15 instances where there's members of the public who just
16 oppose the entire undertaking regardless of what the
17 alternatives were.

18 MR. MARTEL: What worries me is that the
19 public -- if you set out the preferred option people
20 will always be in the position of appearing to be
21 fighting City Hall, that the decision has already
22 essentially been cast, and I don't care what group it
23 is that says I don't like it, they're forced into the
24 position of having to oppose what appears to be a
25 decision.

1 This is the preferred option, they're
2 coming to you and they're saying: This is preferred
3 over everything else and to be faced with having to
4 take on City Hall and change that, doesn't that worry
5 you what the perception is?

6 MS. DAHL: I think that's why the MOE
7 recommends that you not choose your preferred options
8 at this stage. But, again, we don't want to eliminate
9 that possibility.

10 If the planning team decides that that's
11 what they want to do, then perhaps that's a risk that
12 they're deciding to take.

13 MR. CASSIDY: Q. And you don't see any
14 risk with just setting out -- even the mere setting out
15 the options causes that problem, that's not going to
16 happen in your experience?

17 At very first information centre --

18 MS. DAHL: A. That setting out the
19 options is going make the public think that the
20 decision has already been made?

21 Q. Mm-hmm.

22 A. I think it's a significant
23 improvement over the way it's done now, where just the
24 selected areas are shown. I mean, that's what public
25 consultation is all about, presenting the options

1 reasonable for achieving the purpose and allowing the
2 public to understand and comment on those.

3 Q. So it's not -- you don't see that as
4 a risk then?

5 A. No.

6 Q. Members of the public do not - and
7 perhaps this will be the last question before the
8 break, Madam Chair - members of the public, in your
9 view, you're not setting up the risk that they feel the
10 fix is in by setting out the options, that risk only
11 occurs when you set out the preferred ones; is that
12 your evidence?

13 A. No, I think you lessen that risk by
14 setting out the options.

15 Q. It's still a risk; isn't it, because
16 if somebody doesn't get within those risks or within
17 those options, they all of a sudden think: Yeah, no
18 matter what I try to do they still got the options
19 wrong; right?

20 A. There's a risk in everything.

21 Q. Right?

22 MR. CASSIDY: Perhaps we can take the
23 break now, Madam Chair.

24 MADAM CHAIR: Getting tired, Mr. Cassidy.

25 MR. CASSIDY: No, I noticed you were

1 getting a little restless. I though you might need a
2 break.

3 MADAM CHAIR: Sounds good to me. Be back
4 in 20 minutes.

5 MR. FREIDIN: 10 minutes?

6 MADAM CHAIR: No, 20.

7 ---Recess taken at 2:50 p.m.

8 ---On resuming at 3:15 p.m.

9 MADAM CHAIR: Please be seated.

10 Mr. Cassidy.

11 MR. CASSIDY: Q. I still need an answer
12 to the question I posed about the alternative planning.
13 Mr. Bax, you may want to help out on this -- help Ms.
14 Dahl on this.

15 With respect to the geographic size of
16 the alternative planning that you envisage in your
17 example and in your term and condition, Ms. Dahl, is it
18 the stand that has to be the subject to alternatives or
19 is it planning or is it something larger than a stand
20 or something smaller?

21 MS. DAHL: A. I think it relates to a
22 general area. It would probably be larger than a
23 single stand.

24 Q. Like...?

25 A. ... Maybe a grouping of stands. It's my

1 understanding I think from what I've looked at in terms
2 of selection criteria that -- well, obviously there are
3 advantages to trying to choose stands that are in the
4 same general vicinity, it may be a grouping like that.
5 Again, it would depend on the forest management unit.

6 Q. So you would leave that up to the
7 individual unit to determine the extent of the
8 geographic area that has to be subject to this
9 alternatives planning, you would not ask the Board to
10 make this as a general geographic distinction?

11 A. No. We're proposing the concept of
12 identifying the options that exist and assessing them,
13 it's obviously up to the physical parameters of the
14 forest management unit to determine what the size of
15 those is going to be.

16 Q. And it wouldn't necessarily have to
17 be done by a stand then, the unit could decide to do
18 that alternatives planning for the whole unit?

19 A. The alternatives planning, it applies
20 to your selection of the area where you focus the
21 operations. How you delineate the exact size of that
22 area will be up to the planning team in that particular
23 unit based on the characteristics there.

24 Q. Do you see any conflict as a planner
25 with that and the concept of a class environmental

1 assessment where there's a standardized planning
2 process put in place for the whole province.

3 A. No. Class EAs set out the general
4 planning process that will be followed and the
5 specifics of how it's implemented and what the
6 appropriate alternatives are. It depends on the
7 project that's being implemented under the Class EA.

8 Q. So that in one unit you could have
9 stands grouped together for this alternatives planning,
10 whereas in another unit they could have them -- that
11 alternatives planning be required for each individual
12 stand?

13 A. I don't think that it would actually
14 be done on the basis of each individual stand.

15 Q. Okay. I'm not asking --

16 A. My suggestion is it's a grouping of
17 stands and that, yes, it would be up to the individual
18 forest management unit to determine what is
19 appropriate.

20 Q. The MOE doesn't care either way.

21 A. As long as they're reasonable
22 alternatives.

23 Q. Yes. I'm sorry, I wasn't talking
24 about alternatives, I was talking about the geographic
25 that has to be lumped in. The MOE doesn't care how a

1 unit does it or would do it?

2 A. The example that we gave in the
3 evidence is a way of doing it, it's a general way of
4 doing it. There can be variations on that depending on
5 what the planning team determines is appropriate, yes.

6 Q. So you would leave that discretion up
7 to the planning team?

8 A. It has to make sense for that area,
9 yes.

10 Q. Is there anybody who makes it -- if
11 someone disagrees with the way the planning -- plan
12 author and planning team or the local citizens
13 committee, whoever makes that decision, if someone
14 disagrees with the way they make that geographic
15 distinction or the way they planned for it on a
16 geographic basis, who tells them to do otherwise?

17 A. That concern would have to be -- that
18 person could bring the concern to the planning team's
19 attention, they would determine how to do it and if
20 they weren't sure how to do it, they can certainly
21 consult with the Ministry of the Environment if they
22 wanted further direction on what was appropriate.

23 Q. So the Ministry of the Environment
24 would have a final decision on what to do?

25 A. No, the planning team would have the

1 final decision.

2 Q. And if somebody didn't like the
3 planning team's decision on how to aggregate the areas
4 to do the alternatives planning, how would that -- what
5 would that person do, who would he complain to or how
6 would he get it reversed; would that be a subject of
7 bump-up?

8 A. I don't think I could see or envision
9 a bump-up request coming out of exactly how the
10 alternative options available were delineated. There
11 may be a request if there's an area that perhaps should
12 have been considered and wasn't.

13 Q. I'm not asking to predict the future,
14 I'm asking you to tell me what the Ministry sees as its
15 planning process.

16 So far you've told me that the Ministry
17 of the Environment does not care, it's going to leave
18 it up to the local individual units to decide what
19 geographical area of operations will be the subject of
20 this alternatives analysis, it could be the stand, it
21 could be a collection of stands.

22 What if somebody disagrees with that
23 geographical designation or area and says: No, you
24 should have considered a different aggregate or a
25 different collection or maybe only stand by stand.

1 Where does a person take that complaint once the
2 planning team has made that decision?

3 A. I think that, like any concern, you
4 take that complaint to the planning team. If they
5 wanted to pursue it they could take it to the issue
6 resolution process that's being proposed and they have
7 the option of requesting a bump-up on any concern to do
8 with timber management.

9 Q. All right. Now, if someone were to
10 choose a stand by stand alternative analysis as the way
11 they wanted to do it, and you say they have the
12 discretion to do that; right?

13 A. Yes, if they wanted to.

14 Q. If they chose that, do you have any
15 idea how many stands there are in a typical forest
16 management unit in this province?

17 A. No.

18 Q. So that you have no idea of the level
19 of planning that might be involved in a typical
20 management unit if they were to do a stand by stand
21 alternative analysis as you've proposed?

22 A. I haven't proposed stand by stand
23 alternatives analysis.

24 Q. Well, you acknowledge that that would
25 be a possibility under your process.

1 A. It's possible.

2 MR. BAX: A. Madam Chair, if I can
3 interject. I under, whatever that map is called, I
4 mean you don't show stands at this scale, it's
5 impossible. So to me your question is ludicrous. I
6 mean, that kind of detail is not possible on these kind
7 of stands at that level.

8 Q. Well, with respect to Mr. Bax, we're
9 talking about the areas allocated for options, that's
10 what your term and condition talks about, and I'm
11 trying to get a handle on - whether or not it shows up
12 on a map is irrelevant to me - what I'm suggesting --

13 A. The choice is there.

14 Q. Hear me out.

15 A. How can I show stand by stand if that
16 information isn't available on the map. I think it's
17 just common sense that scale doesn't show stand level
18 detail.

19 Q. That scale may not show stand level
20 detail, but Ms. Dahl, would you agree that a unit could
21 decide under your process to do that type of analysis
22 on a stand by stand basis?

23 MS. DAHL: A. It's possible that they
24 could decide that.

25 Q. All right.

1 A. Obviously they would choose something
2 that's reasonable to work with, and I don't think that
3 that would be reasonable to work with at this level and
4 I don't think that they would choose to do it on a
5 stand by stand basis.

6 Q. Well, would you agree with me that
7 other people might share a different view as to whether
8 or not you think it's reasonable to do a stand by stand
9 analysis, some people might think it's very reasonable;
10 would they not?

11 A. They might yes.

12 Q. Well then...

13 MADAM CHAIR: We've heard Ms. Dahl's
14 evidence that the planning team and the plan author are
15 the ones who identify, in the first instance, what the
16 eligible areas of operation are.

17 Now, they're going to identify areas
18 presumably that are economic to harvest, they're not
19 going to identify a little stand that you wouldn't
20 harvest anyway. I don't think the Board understands
21 where you're going with this, Mr. Cassidy.

22 MR. CASSIDY: Well, where I'm going is
23 the eligible area may consist of a variety of stands
24 which may be harvested in a variety of different ways,
25 and I'm suggesting that it's entirely likely under

1 this -- entirely a possibility under this process that
2 you may want to do a stand by stand analysis,
3 notwithstanding you've got eligible areas marked on a
4 map that shows them at that scale.

5 And, as a result, I'm trying to get a
6 handle on the level of analysis which may in fact occur
7 here and I suggest that it may be more than the half a
8 day that Mr. Bax has in mind.

9 So I'm --

10 MADAM CHAIR: We're completely in the
11 dark with this question, Mr. Cassidy. We have a
12 summary map, we have some broad areas outlined as
13 possible areas for operations, we're going to have the
14 timber management planning team and the plan author
15 identify some subset of those areas as being
16 possibilities for the five-year timber management plan.

17 Now, are you saying that someone from the
18 public is going to ask that each of those areas be
19 broken down stand by stand for analysis of the
20 alternatives?

21 MR. CASSIDY: And in fact it may very
22 well be the Ministry of the Environment, because when
23 they look at their Appendix 9 for monitoring purposes
24 they want a stand listing in a silvicultural package
25 for a stand, not for an eligible area, not for a unit

1 but for a stand; hence my concern, Madam Chair.

2 The Ministry of the Environment wants a
3 stand listing for monitoring purposes.

4 MR. BAX: Madam Chair, I mean the
5 first --

6 MR. CASSIDY: I didn't make this up, it's
7 written here.

8 MR. BAX: No, no. To me it's common
9 - sense. I mean, if you're going to allocate areas, or
10 your clients, they're going to do it on the basis of
11 certain criteria. You're not going to show an area if
12 there's no volume there. How did you determine there's
13 no volume there? You went to your stand listing and
14 grouped them together and said: Hey, there's enough
15 volume here.

16 So you have to -- I mean, it's your basic
17 building block.

18 MS. DAHL: Perhaps I can clarify. I
19 think it's my understanding that what's proposed there
20 is once you've made all of these decisions then you've
21 narrowed it down to the areas that you're proposing to
22 operate in. I believe that's when you would have that
23 stand listing.

24 And, as I explained yesterday, it's a
25 process of narrowing down from a more general level to

1 a more detailed level, and once you have selected your
2 areas, I think it's reasonable to identify the specific
3 stands.

4 MR. CASSIDY: Q. Well, all right then,
5 can I get the Ministry's agreement that they would not
6 expect and perhaps would reword their term and
7 condition to suggest that the alternatives will only be
8 dealt with on the scale that Mr. Bax is talking about
9 which is not at a stand scale which is in fact some
10 larger unit? Would you agree to that?

11 MS. DAHL: A. I don't think it's
12 necessary to do that. What we're proposing would be
13 left to the discretion of the planning team, and I
14 think that the planning team is going to make
15 reasonable decisions.

16 I don't think it's essential to specify
17 that in the term and condition. You have to leave some
18 flexibility to allow the planning team to determine
19 what's appropriate. That's why we've proposed it in a
20 more general way.

21 Q. So the concept of a class
22 environmental assessment in that -- the standardized
23 planning goes out the window in that context, you don't
24 need to have that concern; is that what you're saying?

25 A. It's still the same planning process

1 but the details of it are worked out on an individual
2 basis.

3 Q. All right. Would you consider
4 amending your term and condition then to suggest that
5 there -- that it be stated clearly that the individual
6 unit and whoever the decision-makers are have that
7 discretion to choose the geographical area for the
8 analysis of the alternatives that they wish?

9 MR. BAX: A. Madam Chair, if I could
10 point out that Appendix 9 we have agreed to look at
11 again because I believe we have reached tentative
12 agreement under one of our other terms and conditions
13 and show by general standard type sites.

14 Q. With the Ministry of Environment --
15 Ministry of Natural Resources?

16 A. Yes, that's correct and as a result
17 of that we also have to look at this and if it can be
18 done satisfactorily by site types, I think that's fine.

19 The concern of the Ministry of the
20 Environment is just we've got to be able to see where
21 it's going to do, where the effects are going to occur
22 and whether or not it was effective.

23 If you choose not to do it by stands,
24 that's fine, do it by something that is traceable,
25 that's all we're asking.

1 Q. Is that going to be put into your
2 terms and conditions that that discretion shall be left
3 at the unit level?

4 MS. SEABORN: Well, Mr. Cassidy, Mr. Bax
5 just said in light of the revised term and condition
6 that we got late last week from MNR that we'd be
7 looking at Appendix 9 again.

8 You also recall that his evidence was at
9 the outset that our changed Appendix 9 came out of the
10 existing timber management planning manual and is a
11 requirement today.

12 MR. CASSIDY: Q. How does that relate to
13 Appendix 4 and the suggested changes that you have in
14 item 2(vi)?

15 Is there going to be a discretion landed
16 in there?

17 MS. DAHL: A. I don't think it's
18 necessary to specify that discretion in the term and
19 condition because it in no way limits that discretion.

20 MR. BAX: A. No.

21 Q. Well, you have a discretion of the
22 plan author to put a description of the preferred
23 option in, you saw fit to state that description.
24 Presumably if you didn't put that in you could have put
25 it in, you're not limited. I don't understand why you

1 won't put that discretion in there as well.

2 A. Well, in terms of identifying the
3 preferred option we just wanted to specify that --

4 Q. For certainty; right?

5 A. --that that particular thing could be
6 done.

7 Q. For certainty. And I'm suggesting to
8 you that for certainty, if that's what your position
9 is, you state that at the local level planning team or
10 whoever makes this decision in your mind has the
11 discretion to aggregate areas for the purposes of that
12 analysis. What is the problem with putting that in
13 there?

14 MR. BAX: A. I think part of it is
15 changing technology as well. You know, it's changing
16 so fast, the tools that we can use to do that, as well
17 as the groupings that we're going to use.

18 So I think from an operational sense
19 you're better off leaving it at your discretion.
20 You're the people who know how best to do it. Give us
21 and show those choices, that's all.

22 MS. SEABORN: Mr. Cassidy, given we're
23 going to be looking at the change we have made to
24 Appendix 9 we'll go back and have a look at the wording
25 you've suggested in the context of the term and

1 condition and look at it.

2 As Mr. Bax has indicated, there may be
3 some implications for Appendix 9 and our suggestion to
4 that and once we look at that we'll go back and see
5 whether we think more detail needs to be put in at
6 stage 2 and we'll consider your suggestion. We'll be
7 happy to talk with your clients about it as well when
8 the evidence is over.

9 MR. CASSIDY: All right.

10 MADAM CHAIR: Does that satisfy you, Mr.
11 Cassidy? The Board can understand the concerns of Mr.
12 Cassidy's clients and I imagine for the Ministry of
13 Natural Resources as well and if they have to do
14 alternative analysis by stands as opposed to areas of
15 operations or eligibility, they are going to spending a
16 lot of time doing that.

17 MS. SEABORN: Well, Madam Chair, you will
18 recall that we didn't raise the issue of alternatives
19 by stands, Mr. Cassidy did.

20 MR. MARTEL: But the potential is there.

21 MR. CASSIDY: And the potential for reams
22 of paper is there.

23 MR. MARTEL: I'm not saying it's real,
24 it's just if you had -- somebody could say that we want
25 it by stand, not on the planning team, but any group,

1 somebody on the stakeholders group, somebody at the
2 first open house says: No, this is -- it doesn't give
3 us enough. It doesn't preclude that, that's all I'm
4 concerned about.

5 MS. SEABORN: Mr. Martel, there's no
6 question that our intent is not to require more paper
7 or the stand listing. You'll also recall the evidence
8 was that the listing of stands originally in our terms
9 and conditions comes right out of the existing timber
10 management planning manual, we did not think up this
11 idea of providing a stand listing, it's apparently
12 required now and there was evidence on it during MNR's
13 panel 15.

14 I think you've made a very good point
15 about someone coming along and trying to require that,
16 and we'll look at this wording and see whether we can
17 discuss it with Mr. Cassidy and Mr. Freidin and see if
18 we can incorporate some wording that would satisfy that
19 concern.

20 Because certainly we are not trying to
21 suggest that it should be done stand by stand. I think
22 that's the evidence of Mr. Bax and Ms. Dahl.

23 MR. CASSIDY: Q. What about cut block by
24 cut block, Mr. Bax, you know that harvesting occurs
25 sometimes within half a stand?

1 MR. BAX: A. Sure.

2 Q. Sometimes two and a half stands?

3 A. That's right. You know, I don't
4 think they're hung up or - I don't know what the right
5 word is - as to the classification, and the concern is
6 correct, at public hearings what level of detail. It's
7 got to be something that's functional for you as well
8 as these public open houses that they have and
9 information centres.

10 So I think if we can't specify it, then
11 perhaps as Ms. Seaborn indicated, we will look at it
12 again and see if we can come to an agreement in terms
13 of a level of specificity that is required, that's
14 practical.

15 Q. And you would agree that the smaller
16 the stand potentially the more paperwork is generated
17 for the public to have to review because you would be
18 doing that much more alternatives for the area; is that
19 correct Ms. Dahl?

20 The smaller the area, the smaller the
21 area the you're going to have to do analysis here, and
22 you're going to have to start another analysis over
23 here; the larger the area, the more reasonable the
24 paper; is that fair?

25 MS. DAHL: A. Yes.

1 Q. Yes. And we want to keep the paper
2 down; don't we?

3 MR. BAX: A. Oh yeah.

4 MS. DAHL: A. Absolutely.

5 Q. We're all agreed on that, Madam
6 Chair.

7 MR. MARTEL: I think that Ms. Seaborn has
8 indicated that she's prepared to talk to you and Mr.
9 Freidin and get a resolution.

10 MR. CASSIDY: I'm moving on, Mr. Martel.

11 MR. MARTEL: Well, Mr. Freidin is shaking
12 his head.

13 MR. FREIDIN: I'm still going to
14 cross-examine. There have been many discussions on
15 this environmental issue that haven't been resolved
16 yet.

17 MS. SEABORN: Thank you, Mr. Freidin, for
18 that.

19 MR. CASSIDY: Let me move on. I'm going
20 to undertake to be done as quickly as possible, Madam
21 Chair. As I indicated to you there's a risk we may go
22 past 4:00 but I'll move with all due dispatch to get us
23 out of here as soon as possible, if you'll bear with me
24 I can finish today.

25 MADAM CHAIR: Okay. Go ahead, Mr.

1 Cassidy.

2 MR. CASSIDY: Q. The null alternative,
3 Ms. Dahl, the land use guidelines -- picture this
4 scenario which I suggest to you is a common scenario
5 across northern Ontario, the land use guidelines in a
6 district permit timber management activities to be
7 carried on, could you ever envisage a situation where
8 the null alternative in this planning process you're
9 suggesting would say that no timber management
10 activities will not be permitted and that that
11 alternative would be chosen?

12 MS. DAHL: A. As I explained, that's
13 not -- we're not talking about the null alternative at
14 that level.

15 Q. I know you aren't, but if you put
16 that in the planning process -- go ahead.

17 A. We haven't indicated anywhere that
18 the null alternative has to be considered. In my
19 evidence I made a suggestion that the Ministry
20 recommends that you consider the null alternative when
21 you're comparing alternatives.

22 I don't think we have a term and
23 condition that says that the null alternative has to be
24 considered at the forest management unit level or at
25 any level.

1 Q. All right. So we would take out in
2 your example on page 8, and just above that when you
3 state that:

4 "MOE recommends that the null alternative
5 be considered not only in the
6 parent Class EA Document..", we can
7 ignore that then, you do not want the null alternative
8 included in the planning process and these
9 alternatives?

10 A. We recommend that it be considered in
11 determining the advantages and disadvantages.

12 Q. I suggest to you that if you
13 consider, if you go to the public and say we are going
14 to consider the null alternative but we are never going
15 to act on it, you are going to have more bump-up
16 requests than you ever know what to do with. That is
17 misleading to the public; is it not?

18 A. I have said in my evidence yesterday
19 that it isn't necessary to document the null
20 alternative and that we're not suggesting that it be
21 considered in the context of a separate alternative
22 from operating in these areas.

23 The purpose is simply to consider what
24 will happen to that environment if you don't operate
25 and compare it to what will happen if you do operate to

1 understand the significance of your advantages and
2 disadvantages.

3 Q. Well, this morning Mr. Hanna asked
4 you that question and you said the proponent and the
5 community could choose to select that alternative, the
6 null alternative and if they can select to choose that
7 null alternative, I suggest to you that they are using
8 the timber management planning process to overrule or
9 permitted use in the land use guidelines?

10 A. As I said yesterday when I was
11 demonstrating the example, you may select the null
12 alternative in one of those areas; in other words you
13 choose not to operate in that area during the term of
14 that plan.

15 It doesn't mean that no timber management
16 activities will ever occur in that area, you may just
17 decide that the advantages of getting the supply you
18 need from somewhere else outweigh the disadvantages in
19 that area, so you choose not to operate there for the
20 time being. You may come back to it at another point
21 in time.

22 It's not a land use decision and I don't
23 believe it conflicts with what is set out in the
24 district land use guidelines. It's not a decision that
25 forestry practices will not be allowed there.

1 Q. So you feel there's some sort of
2 temporal nature to it that is not overruling the land
3 use guidelines, it gets reconsidered every five years;
4 is that what you're saving yourself with?

5 I don't mean you personally, but this
6 provision. Because we're not making a decision for all
7 time, we're making it every five years, you're not
8 exercising the null alternative?

9 A. Well, it depends how you define the
10 null alternative. The way that I've defined it in this
11 context is just -- it's another way of looking at the
12 environmental effects of operating. That's all it is,
13 and it seems to be getting blown out of proportion into
14 this much larger thing than what I certainly was
15 intending when I said in my evidence that it should be
16 a consideration in determining your advantages and
17 disadvantages.

18 MR. MARTEL: Mr. Cassidy, if I might. I
19 am having difficulty. On one hand it's just there for
20 comparative purposes, what would be there if you didn't
21 do anything as opposed to what would be there if you
22 did do something. Then we take it a step further and
23 we say: Well, it's not really to be considered except
24 in that light but, in fact, we could stop the cutting
25 for five years, we won't operate in that area for this

1 five years.

2 Well then, you are considering -- I don't
3 know how you reconcile those two different positions
4 you've staked out. Maybe you can help me. You either
5 use it or you don't, but you can't say on one hand it's
6 just there for comparative purposes; on the other hand
7 it stops the operation for five years.

8 Now, which is it?

9 MS. DAHL: What you would be doing I
10 think is determining that you can get what you need
11 from certain areas and that you're not going to operate
12 in all of the areas that are options that exist for
13 that five-year term.

14 That's just what I was suggesting in the
15 example, that you have to make a decision on where
16 you're going to get what you need and where you have
17 options you may not necessarily operate in all of those
18 areas, you may leave some until --

19 MR. MARTEL: But you want the null
20 alternative then, or do you want it as part of the
21 planning, it's good sound planning, for five years we
22 won't touch that. There are conditions there that say
23 we shouldn't touch it.

24 MS. DAHL: There may be, but those would
25 be the reasons why you decide that it's better to get

1 what you need from these other options that exist.

2 MR. MARTEL: I understand that.

3 MADAM CHAIR: Are you saying, Ms. Dahl,
4 that the null alternative, as you're trying to describe
5 it, is confined only within the boundaries of the
6 forest management unit to which the timber management
7 plan is associated, it doesn't exist beyond those
8 boundaries and it only deals with whatever set of
9 optional areas of operation you've chosen for a
10 five-year plan.

11 MS. DAHL: I've suggested that it needs
12 to be considered in the context of when you're looking
13 at one of those specific areas to try and determine
14 what the advantages and disadvantages of operating in
15 that area are.

16 MADAM CHAIR: But --

17 MS. DAHL: Consider in contrast to that
18 area. It's not something -- it's not an alternative
19 beyond that.

20 MADAM CHAIR: All right. So it's not --

21 MS. DAHL: It's not an option that you
22 set out of not operating at all in that forest
23 management unit for the five-year period, that's not at
24 all what I'm suggesting.

25 MADAM CHAIR: All right. So if the

1 planning team has to produce a certain amount of fiber
2 and when they're looking at these alternatives they may
3 still meet their objective although the null
4 alternative would have been applied to eliminate three
5 of those areas?

6 What we're saying is that in a timber
7 management plan can every area marked on the summary
8 map be eliminated because of the null alternative so
9 that you would produce no fiber in the timber
10 management plan for that five-year period in any of the
11 options.

12 MS. DAHL: No, that's not what I'm
13 suggesting.

14 MADAM CHAIR: So it's just a way of
15 assessing each option against the other?

16 MS. DAHL: It's just a way of assessing
17 each option against the others. You decide where you
18 are going to operate.

19 MADAM CHAIR: So the option that you
20 reject in the first five-year plan may indeed be the
21 ones you go to in the second five-year plan?

22 MS. DAHL: That's right. And how I
23 characterizd it yesterday, I said that in effect you
24 actually would be applying the null alternative to that
25 area, and I think that created a lot of confusion,

1 but...

2 MR. MARTEL: I think it's that wording
3 that conjures up the whole idea of the null
4 alternative.

5 MS. DAHL: I realize that now, that that
6 creates that impression. It is intended just to assess
7 the different options that exist.

8 MR. CASSIDY: Q. It's actually making a
9 decision not to operate in a particular area?

10 MS. DAHL: A. Right.

11 Q. Now, the land use guidelines permit
12 that. Are you not overruling that activity; are you
13 not overruling the land use guidelines--

14 A. No.

15 Q. --if you allow that in the timber
16 management planning process?

17 A. No, it's still a permitted activity
18 in that area, you've just made a decision that you're
19 not going to carry it out for a certain period.

20 Q. For a certain period. So every five
21 years that battle has to be refought if somebody
22 doesn't want that activity in their area; is that
23 right?

24 A. No, I don't think that's the way it
25 would happen. I mean, we're not saying that you have

1 to out and document the null alternative in each of
2 these options, it's just a consideration in deciding
3 what your -- or determining what your advantages and
4 disadvantages are.

5 It may be something that the planning
6 team and local citizens committee do on their own when
7 they sit down and try to work all this out. I've just
8 suggested that it's a consideration that needs to be
9 made to understand the significance of those advantages
10 and disadvantages.

11 I'm not saying that you're going to have
12 a chart that has option 1, null option 1, option 2,
13 null alternative option 2. That's not at all what was
14 proposed.

15 You set out the advantages and
16 disadvantages for each of the options, and all I've
17 suggested is that considering the null alternative
18 assists you in determining what those advantages and
19 disadvantages are.

20 Q. So the null alternative which is in
21 the example is wrong then; you wouldn't have that in
22 real life.

23 A. You probably wouldn't. I would say
24 the only time that you might want to document that is
25 when it provides the additional rationale for why

1 you've chosen to operate in that area; in other words,
2 if there's lot of concern about that decision, showing
3 what would happen if you didn't operate may help you to
4 explain the rationale for that decision more clearly.

5 Q. All right. Let's move to you, Mr.
6 Bax. Back to you. I'm looking at your overheads which
7 is Exhibit 2207 and I'm looking at overhead No. 6 in
8 that collection.

9 And this is the linkage traceability
10 discussion that you had with Ms. Seaborn, remember?

11 MR. BAX: A. (nodding affirmatively)

12 Q. And I think one of your major
13 concerns was for effectiveness measurement and
14 monitoring; right? That's one of the major reasons why
15 you want to have this type of delineation of various
16 logging methods, renewal methods, site description;
17 correct?

18 A. Mm-hmm.

19 Q. Let's start from the left. Forest
20 unit is jack pine. Would you agree that in a typical
21 management unit there are sometimes four to five
22 different working groups other than -- jack pine being
23 one of them, but typically there's four or five?

24 A. That's correct.

25 Q. So you would have to set out

1 separately a whole silvicultural regime for each
2 working group. This is just an example of a jack pine
3 one; right?

4 A. That's correct, and that's what the
5 current manual requires as well.

6 Q. All right. So you would have
7 potentially five different collections of this type of
8 data if you had five working groups in the unit?

9 A. That's correct.

10 Q. You might in fact have 10 if there's
11 10 working groups in a unit, and that's not unheard of
12 I'm told in some parts of the area of undertaking;
13 correct?

14 A. 10 species that are classified by
15 working group. Just off the top of my head I haven't
16 seen that many, but...

17 Q. In southern Ontario I'm told --
18 southern part of the area of the undertaking may have
19 up to 10 working groups.

20 A. The Great Lakes/St. Lawrence Forest
21 region of this portion of the area of the undertaking.

22 Q. That's in the area of the
23 undertaking?

24 A. Okay. Well, it could be.

25 Q. All right.

1 A. Most of the ones that I've gone
2 through, the Table 4.11s, last anywhere from three
3 pages to 15, 20 pages.

4 Q. Under the current system?

5 A. That's right.

6 Q. Right. Then under site description
7 you have one type of site discussed there on that
8 overhead; correct?

9 A. (nodding affirmatively)

10 Q. There may in fact be, in a working
11 group, several different types of site descriptions,
12 five to 10 depending on --

13 A. How you classify them.

14 Q. Whatever the general standard site
15 type is going to be or whatever it is at present;
16 right?

17 A. And depending on how you classify
18 them, that's correct.

19 Q. Right. So that the actual situation,
20 this is an example, but the reality is a much expanded
21 collection of data because you've now got five working
22 groups, you now have got a variety of site
23 descriptions--

24 A. That's correct.

25 Q. --because you have got a variety of

1 sites; right, and within those sites you would want a
2 delineation of soil depth; would you not, I think Mr.
3 Neary is concerned about soil depth.

4 A. Whatever criterion you choose to
5 determine your site types. If one of those is soil
6 depth, yes, so be it.

7 Q. Well, Mr. Near is suggesting terms
8 and conditions which talk about soil depth, so I would
9 assume that for the effectiveness to be measured and
10 the monitoring to be done you not only would have to
11 break your site down by its normal description you then
12 would have to get into some sort of soil depth regime
13 or breakdown?

14 A. No, I disagree. Your site
15 descriptions, you're going to classify -- the ones that
16 I've seen, I've seen as many as -- up to eight or 10 I
17 would guess. Most of the working numbers seems four to
18 that range.

19 Q. Right.

20 A. It has to be workable, practical.

21 Q. Oh absolutely.

22 A. Good.

23 Q. Let's talk about that. Under the
24 silvic system you have clearcut in full. There are
25 different types of clearcut silvicultural systems;

1 correct?

2 A. That's correct.

3 Q. In fact, in the exhibit that Mr.
4 Neary talked about he had open clearcuts - you don't
5 have to pick it up, Madam Chair, it's Exhibit 2206 -
6 open clearcuts, strip and block clearcuts, seed tree
7 clearcuts and partial clearcuts.

8 MR. NEARY: A. It's my understanding
9 that those aren't all considered to be valid variations
10 of the clearcut system any more, particularly partial
11 clearcuts.

12 Q. Any comment, Mr. Bax?

13 MR. BAX: A. No. I think again if you
14 go through the various timber management plans that
15 have been submitted and you see they use that
16 silvicultural system and quite simply, you know, that's
17 not a complicated definition.

18 Q. But you would want a clearcut to be
19 described as more than just clearcut, you would want a
20 breakdown of the different types of clearcuts; would
21 you not?

22 A. You have to do that, not me. You
23 have to indicate what your site package is going to
24 comprise of and if you feel it's important to show
25 that, then show it. If you don't feel it's important,

1 then don't.

2 The silvicultural system is clear, you
3 have three in the province, not 20, not 40, you have
4 three of them. There isn't that many choices.

5 Q. Well, in your own overhead you've got
6 two different types of clearcuts described, clearcut in
7 full on overhead 6 and clearcut in blocks.

8 A. That's right.

9 Q. What I'm suggesting is I want to know
10 what the Ministry of Environment wants in terms of
11 level of detail. If you're going to leave it up to the
12 individual forester in terms of discretion, I don't
13 understand what your concern is when all of a sudden
14 you want logging methods delineated.

15 A. I think if you go back to our
16 evidence we want a simple traceable manner to track
17 that. Now, if there's three of those types of
18 clearcuts that your foresters feel are important, then
19 show three. If there's two, then show two. That's the
20 system you're evolving with the Ministry of Natural
21 Resources. That's where you people are the best.

22 Q. So you would have no problem with a
23 forester in an individual unit exercising his
24 discretion to fill in the silvics system and the
25 breakdown of clearcuts as he saw fit?

1 A. As long as it's consistent across the
2 area of the undertaking. There isn't that many.

3 Q. Well, that's what this Class EA is
4 all about. I mean, on the one hand you say discretion
5 on the forester and now it has to be consistent across
6 the area of the undertaking. That's two different
7 things. Which one is it?

8 A. It has to be consistent. You have
9 defined in the timber management planning manual three
10 silvicultural systems, not a dozen, three, clearcut,
11 shelterwood and the selection cut, sorry.

12 There isn't 20 different types of
13 silvicultural systems under that definition, so I think
14 you're wrong.

15 Q. Well, thank you. And now I would
16 like to move on to discuss with you the fact that there
17 are three -- I see a variety of clearcuts described in
18 the evidence, I see a variety of silvicultural systems
19 and a variety could be five, could be 10. You have no
20 problem with the individual forester filling in that
21 category as he sees fit?

22 A. Under the silvicultural system?

23 Q. Yes.

24 A. No, I think it has -- I think what
25 our evidence has stated has to be consistent. You

1 can't have everybody putting in there what they want.
2 That's defined in the timber management planning
3 document that you follow.

4 Q. Now, logging method. It has to be
5 broken down in categories such as that; correct? You
6 would have to do that breakdown within each one of the
7 say three clearcut systems that a unit chooses;
8 correct?

9 So if they chose to use three different
10 types of clearcuts they would then have to state the
11 logging method within each one of those clearcuts;
12 correct?

13 A. I think you're making it more
14 complicated. For example, if the impact of the logging
15 method that you choose for your particular site or
16 silvicultural package that you're going to utilize is
17 the same in terms of renewal and treatments, obviously
18 you're not going to list all five, you put a number
19 five or however you code it.

20 You know, I think the examples -- going
21 back from the review of the 411s that I've reviewed,
22 there's some very simple practical methods to show the
23 packages. All's we're saying is make it consistent.
24 It isn't that complicated.

25 Q. Now, with respect to each one of the

1 clearcut systems, where there is a different -- a
2 variety of logging methods used, you would want each
3 logging method spelled out?

4 A. I would want the logging method that
5 you're going to use in your package specified, yes,
6 that's correct.

7 Q. Or methods?

8 A. Or methods, yes. One, two, three,
9 four, five or whatever category.

10 Q. All right. So you could have three
11 different types of clearcuts employed on the unit,
12 you're going to have -- potentially you could have five
13 different types of logging methods employed within each
14 one of those clearcut methods; right. It's a
15 possibility. Yes?

16 A. I haven't seen it, no.

17 Q. You've not toured every unit in the
18 province; have you?

19 A. No, but I've worked all the way from
20 Kenora all the way across to Sudbury over 25 years and
21 my job is to do exactly that, the renewal methods
22 following the logging methods that were used. So I'm
23 familiar.

24 Q. You would agree that's a possibility
25 depending on the local circumstances?

1 A. No,

2 Q. It's not a possibility?

3 A. I think -- well, I think if you look
4 at the possibilities or the silvicultural packages that
5 are used across the area of the undertaking they number
6 somewhere from about 10 to 15.

7 Now, we have an incredible number of
8 choices, but practically we don't have every little bit
9 of choice that we want, sometimes there's a restriction
10 on number of trees for example that's currently
11 occurring, that's going to limit the number of
12 silvicultural packages you can employ.

13 All's we're asking for and the Ministry
14 of Environment is asking for is, show it as an option
15 and I think you're Table 4.11s that you've done, most
16 of the foresters have done a wonderful job. It's just
17 it's all over the map in terms of the way they show it.
18 Be consistent, that's all.

19 Q. So you are asking for consistent
20 delineation, it's not up to the individual discretion
21 of the forester. Once he gets that consistency from
22 wherever it has to be followed in that fashion?

23 A. That's right.

24 Q. Now, with respect to the renewal
25 method, there are a variety of different planting

1 types, there are a variety of different seeding
2 mechanisms, and a variety of different -- well, I'm
3 sorry, a variety of planting and seeding
4 prescriptions--

5 A. That's correct.

6 Q. --that are available; correct?

7 A. That's correct.

8 Q. And in fact the choice of that
9 prescription may have a dramatic impact on your
10 effectiveness?

11 A. That's correct.

12 Q. And yet you don't choose to delineate
13 between those different methods, for example the aerial
14 and direct seeding method?

15 A. Within the silvicultural package. If
16 you feel it's important. I think what the Ministry of
17 Environment is saying is be consistent, and I believe
18 what they're satisfied with if you're going to show the
19 general renewal methods, that's correct.

20 Q. Now, in that overhead 6, you do not
21 have any reference to the site preparation options and
22 you do not have any reference to the maintenance
23 options.

24 A. No, that's correct.

25 Q. Why is that?

1 A. All's what I was trying to show is a
2 simple method of the impact of logging method on the
3 renewal options. Now, there's no argument it affects
4 site prep, there's no argument it impacts on tending as
5 well. I mean --

6 Q. There is no argument that tending
7 options and site prep options would impact on
8 effectiveness?

9 A. Absolutely, absolutely.

10 Q. All right. So that in fact the --
11 I'm just trying to get a handle on this example. Would
12 you agree with me that this example doesn't contain a
13 lot of what is really going to be out there in one of
14 these Table 4.11s. For example, it doesn't contain
15 maintenance or tending?

16 A. No. I mean the only purpose of this
17 sample that I use, and I tried to keep it simple for
18 that reason, was to show that the logging method can
19 impact on the renewal method. There is no argument
20 that it will also impact on site prep and tending, but
21 that's part of the renewal package.

22 And I again go back to the timber
23 management plans that I have reviewed and the Table
24 4.11s, it's -- your foresters don't feel it's a
25 complicated issue. They show those packages, they show

1 them in a simple traceable manner, it's just not
2 consistent. We're just asking for some consistency so
3 it can be followed.

4 Q. So with respect to the overhead 10
5 then in your collection you've got the silvicultural
6 system, which could have clearcut, you could have the
7 five different logging methods all within that
8 clearcut, you could have them again within the
9 shelterwood and again within the selection cut; right?

10 A. That's correct.

11 Q. And with respect to the -- let's just
12 take an example, clearcut and then shortwood, with
13 respect to site prep you could have those four options
14 in site prep just for that one clearcut shortwood
15 package; correct?

16 A. That's correct.

17 Q. And you could have those four options
18 again if you chose clearcut and tree length, you would
19 have to delineate those again; correct?

20 A. (nodding affirmatively)

21 Q. And you would have to have the four
22 logging methods in the selection cut -- if you chose
23 selection cut shortwood you would have to have the four
24 sit prep options again just for that one choice of
25 selection cut in shortwood?

1 A. (nodding affirmatively)

2 Q. And that's all going to take half a
3 day?

4 A. If you go through, again, the Table
5 4.11s and the plans that have been submitted when I
6 went through them, and I went through 35, 40 out of the
7 70 I believe that are at present right now, most of the
8 foresters use about eight to nine, 10 silvicultural
9 packages, which is combinations of these, no argument.

10 But similar to logging, you only use one
11 or two methods, usually there's a preference, and
12 sometimes there's only certain equipment available
13 because of cost constraints. There isn't that many
14 packages used across the Province of Ontario. I was
15 surprised, quite frankly.

16 Q. How effective is your monitoring if
17 you don't know the type of seeding that was done?

18 A. If you want to go to that level of
19 detail, this is for the timber management planning
20 documentation; right?

21 Q. I'm asking you what you think is
22 necessary?

23 A. At this level, at the timber
24 management plan level. No, I don't think you should
25 have to show how you're going to seed it. I think it's

1 sufficient for my -- if I have concerns and I would go
2 to the project record, but I think for the public it's
3 sufficient to know, and obviously for the Ministry of
4 Environment as well.

5 Q. Mr. Neary, your term and condition's
6 suggestion 21(c) regarding full-tree talks about
7 various shallow sites, deep sites, and I guess your
8 concern is because of nutrient -- your basic concern
9 with respect to full-tree harvesting is with respect to
10 nutrient depletion on those types of sites?

11 MR. NEARY: A. Yes.

12 Q. The threat of it.

13 A. Yes.

14 Q. Now, I looked at -- went back and
15 looked at some of the evidence and I'm having real
16 difficulty and that's not unusual, but I need your
17 help. With respect to shallow sites Mr. Marek, who
18 Forests for Tomorrow seemed to think was an expert, he
19 said in Volume 262.

20 MR. LINDGREN: He was qualified as an
21 expert.

22 MR. CASSIDY: Sorry.

23 MR. LINDGREN: He's been qualified as an
24 expert.

25 MR. CASSIDY: Fine.

1 Q. Volume 262 Mr. Marek said at page
2 47375, he said that shallow sites can be very
3 productive sites, very productive sites, but when we're
4 talking about shallow sites everyone immediately asked,
5 what does it mean.

6 MR. NEARY: A. Yeah. Very productive
7 does not necessarily mean that they have large amounts
8 of nutrient reserves.

9 Q. But in terms of site productivity I
10 assume that's what Mr. Marek was talking about in terms
11 of productive. And I assume what your concern about
12 nutrient --

13 A. I don't --

14 Q. Sorry, let me finish. What we're
15 concerned with here is site productivity as opposed to
16 water management or something else. Here you are
17 restricting a harvest method on sites which Mr. Marek
18 says are very productive sites. I don't understand
19 that.

20 A. Well, a site may be very productive
21 in that the growth conditions for a tree are good given
22 the amount of nutrients that are all available to the
23 trees and they grow very well. It does not say that
24 they have large excess reserves of nutrients on those
25 sites.

1 Q. But if there's -- if the site
2 productivity is good, the question of the nutrients I
3 don't -- I don't know how that relates to the question
4 of productivity, the nutrient availability.

5 If it's a productive site, if it will
6 grow trees well, to use layman's terms, I don't
7 understand why you're putting restrictions on it and I
8 also don't understand in the next section of 21(c)
9 where you say that full-tree shall be restricted to
10 stand supported by relatively deep minerals, where in
11 the sentence on page 47375 Mr. Marek says deep sites
12 can be extremely unstable sites depending on the
13 treatment they receive after cutting and disturbance.

14 A. These are generalities. As far as
15 your first point goes, I'm not denying that a shallow
16 site can be productive in that by standard indices of
17 site productivity it has a good stand of trees on it.

18 That is not the same as saying it has a
19 lot of excess nutrient reserves. The Timmer, Savinsky
20 and Marek report indicated that at least from the sites
21 that they looked at that the shallow sites in fact did
22 not have large amounts of nutrient reserves.

23 Q. I know that Mr. Marek comes and tells
24 us this and I'm having some difficulty why you
25 emphasize soil depth in your evidence when, you know,

1 we seem to have evidence which suggests that soil depth
2 does not have any relationship potentially to
3 productivity, in fact, it sounds like Mr. Marek is
4 saying it the other way around.

5 A. Mr. Cassidy, ideally you would have
6 an estimate of available nutrient reserves on the
7 sites. We have formulated that term and condition with,
8 a view to practical application, which is why we based
9 it on the Timmer, Savinsky and Marek recommendations.

10 Given the fact that we had a lot of
11 difficulty determining how much of the area where even
12 soil depth was known, we thought that if we went into
13 soil nutrient content, some kind of estimate of
14 nutrient reserves in the forest floor, you know, there
15 are other things that you could use. We were looking
16 at the one that would be most likely to be available.

17 Q. There is no soil information
18 available in this province; is there, for the types of
19 sites you are talking about, shallow?

20 A. Not on a consistent basis, no.

21 Q. So that in fact to implement your
22 term and condition there is going to have to be a
23 rather massive inventory done if one is going to
24 operate in those areas; is that correct?

25 A. We relied on some of Mr. Armson's

1 testimony that indicated that there was usually some
2 kind of soil information available but not recorded in
3 a consistent manner.

4 We are also aware that some of the
5 working group classifications commonly use soil as part
6 of their working group descriptor and we are relying on
7 that as an index or an indication that soil depth was,
8 of the indicators that you could use, most likely to be
9 available.

10 Q. So you would rely on -- did you have
11 a question, Mr. Martel?

12 MR. MARTEL: No.

13 MR. CASSIDY: Q. You would rely on local
14 soil inventories then in essence, whatever they are in
15 existence at the moment for 21(c) to be implemented?

16 MR. NEARY: A. For the results, if the
17 inventories aren't there in advance, we would assume
18 that it would be obtained during an operational cruise
19 or something like that.

20 Q. Do you have any concerns about the
21 consistency of those soil inventories. One may choose
22 to categorize the shallow site in one unit that's
23 different from another categorization in another unit;
24 would it not?

25 A. Usually measurement of soil depth is

1 fairly straightforward.

2 Q. But as I understand your own
3 evidence, there's definitional problems with what is a
4 shallow site. In fact, even Mr. Marek says that, when
5 we're talking about that everyone immediately says what
6 does it mean.

7 A. No, we -- I explicitly define in
8 my -- in our term and condition what we interpret as a
9 shallow site, and I believe it is a definition that is
10 commonly used by the Ministry of Natural Resources. We
11 derived it from their spruce silvicultural guide.

12 Q. But the inventory does not exist in
13 the province for those levels to show where all the
14 sites that are less than 30 centremetres, that's my
15 understanding from the evidence. Some inventory is
16 going to have to be done for that calculation; is that
17 not correct?

18 A. We were unable to determine, based on
19 our interrogatories and cross-examination, exactly what
20 the nature of the soils information out there was.

21 Q. So you're not able to say what the
22 cost would be of collecting that information, you're
23 not able to inform the Board because you don't know
24 what the existing level is; is that right?

25 A. I guess we don't know what the cost

1 of doing intensive logging on and impoverishing the
2 sites is either.

3 Q. I'm not asking you that, perhaps you
4 can answer the question. You don't know the cost of
5 collecting the data, the soil data--

6 A. No.

7 Q. --that would be needed to do 21(c)?

8 A. No. We attempted to find that out.

9 Q. Now, do you have any -- can you
10 reiterate again why you chose the eight-hectare size?

11 A. The eight-hectare size we chose was
12 chosen actually from the forest resource inventory --
13 no, I'm sorry, timber management planning manual, page
14 202, states:

15 "Areas smaller than eight hectares need
16 not be considered for treatment of
17 failures."

18 I was advised by Mr. Bax that that seemed
19 like a reasonable area in terms of changing equipment
20 as well.

21 Q. All right. So you relied on Mr. Bax
22 for that?

23 A. And this reference in the timber
24 management planning manual.

25 Q. Mr. Bax, when you talk about changing

1 equipment, you're talking about harvesting equipment.

2 MR. BAX: A. Harvesting and renewal,
3 yes.

4 Q. Okay. But in terms of -- I guess
5 what we're talking about full-tree harvesting is not a
6 renewal effort, not an activity subject to the comments
7 regarding the Roto-Lim, we're now talking about
8 full-tree harvesting as a harvesting method.

9 Is it your evidence that full-tree
10 harvesting at eight hectares, it is feasible and
11 reasonable to change equipment in areas that size?

12 A. I don't think it's a question so much
13 of changing equipment. What my concern --

14 Q. Sorry, that's what Mr. --

15 A. Can I explain?

16 Q. Yeah.

17 A. My concern arrived from the fact in
18 my experience over the last 25 years that there is
19 tremendous site variability in the boreal forest in
20 this area of the undertaking and to delineate it down
21 to that size less than eight hectares is not practical.
22 So it's more an operational constraint from all
23 activities.

24 Q. All right.

25 A. It's a reasonable size and obviously

1 the Ministry has agreed with that also to cut it off
2 at, if you will.

3 Q. Mr. Neary was talking to you, or said
4 you were talking about in terms of changing equipment.
5 I have this image that as soon as it gets to eight
6 hectares you think it's reasonable to change equipment
7 of you encounter these conditions. I just want to know
8 if that's your evidence?

9 A. No, it is not.

10 Q. What is a reasonable number that you
11 can reasonably expect an operator in an efficient
12 fashion, and I might add competitive fashion, to be
13 required to change equipment to accommodate these
14 situations or change harvesting methods?

15 A. Again, I think that would be
16 developed in the silvicultural package including the
17 harvest, okay. So that as you look at a site and you
18 are going to determine what options you have for that,
19 the groundrules provide that link and to me the same
20 example, if you have a mature stand that's ready to be
21 harvested, it's gorgeous, there's 40 cords to the acre,
22 it's just sitting, but it's in the middle of nowhere
23 you're not going to build a road all the way up there
24 to harvest it, and the same way you're not going to
25 bring in a specific piece of equipment to do something,

1 a specific harvesting or renewal activity based on --
2 you know, it has to be an economical, practical size
3 and that's why we've chosen it.

4 Q. I'm sorry, the eight hectares is a
5 term and condition which doesn't allow for that type of
6 economic discretion or decision-making to come into it,
7 it just says greater than eight hectares and you run
8 into those conditions.

9 A. No.

10 Q. Where do you see that discretion
11 coming in in the term and condition?

12 A. Well, if you have a lot of areas that
13 are less than eight hectares in size, yes, what we are
14 saying is you can't go in there and full-tree harvest,
15 that's right.

16 Q. You can?

17 A. No, you cannot. If it's a shallow
18 site under the terms and conditions. I mean,
19 obviously, you know...

20 Q. I thought these restrictions were --

21 A. Greater, I'm sorry. Pardon me, it's
22 the other way around.

23 Q. All right. So it's than eight
24 hectares?

25 A. Like you're not going to bring in a

1 full-tree system if the area is - no, I'm mixed up -
2 less than eight hectares, right.

3 Q. Mm-hmm. But if it's 9 hectares you
4 would have to bring in -- reverse the system that
5 you've been operating in an area because you run into
6 one of these conditions. And I'm suggesting to you,
7 where is the discretion that would allow a forester to
8 take those considerations into account you discussed;
9 i.e., economic?

10 A. Because you aren't going to do it on
11 the basis of one stand less than eight hectares. You
12 aren't going into harvest one stand, you're going in to
13 harvest a group of stands, you're going to renew a
14 group of stands. So we're saying if there's a
15 preponderance of that size in there then, yes, you're
16 going to have a restriction.

17 MR. NEARY: A. Mr. Cassidy, there are
18 lines that you may argue are arbitrary being drawn like
19 this all the time as in this eight-hectare requirement
20 for the treatment of failures. I'mn not too sure where
21 it gets us.

22 Q. Well, that's not your job, okay. You
23 have to answer questions and I'm trying to get at this
24 discretion which, it seems to me, to non-exist in this
25 term and condition where the minute that you -- at

1 eight hectares you want to harvest an area that's 10
2 hectares long or whatever, you all of a sudden come
3 upon it or it's there in the middle of another area
4 which has none of those problems, all of sudden you
5 have to change equipment.

6 Where's the discretion, Mr. Bax, in the
7 term and condition, not in somebody's head?

8 MR. BAX: A. No, no. But this term and
9 condition is derived as it is from here on a practical
10 basis, and I think that's what we've tried to follow in
11 our evidence and in the proposed term and condition.

12 We don't want it for areas greater than
13 2, we don't want it for areas greater than 4, we have
14 chosen to follow something which you have obviously
15 already agreed with and that's outlined and that's a
16 practical way.

17 Q. So if it's practical to ignore 21(c),
18 you wouldn't see a problem with that?

19 A. No, no, that's why we're saying.

20 Q. All right.

21 Mr. Neary, just to finish up with you.

22 Now on acidification--

23 MR. NEARY: A. Yes.

24 Q. --your concern about acidification is
25 with respect to logging generally not one particular

1 type of logging; is that correct?

2 A. Acidification can result from
3 logging. These intensive logging methods from my
4 understanding of the process and the literature I've
5 read is more severe on a site than conventional types
6 of logging.

7 Q. What is intensive and what is
8 conventional logging to you. We have a lot of
9 terminology in this hearing?

10 A. I'm using intensive the way it's used
11 in most of the reports by Maliondo and Mahandroppa and
12 other ones that have been put before the Board and that
13 refers to full-tree logging.

14 Q. So full-tree logging, whether it's
15 done in clearcut or selection or a uniform shelterwood,
16 if it's full-tree that's where your concern is?

17 A. My understanding is that it is
18 usually done in a clearcut.

19 Q. What's your concern though? Would it
20 be the same if it was done in selection?

21 A. No, my concern is the amount of, in
22 this case, the nutrients that I'm referring to are
23 primarily calcium and magnesium, but the amount of
24 nutrient-bearing material removed from a site.

25 So if it was done on a selection cutting

1 basis, it would not be of as much a concern.

2 Q. Really. You could have a reduction
3 of the nutrient pool on a selection cutting if you
4 practised full-tree that could be as harmful to the
5 site as a form of uniform shelterwood or clearcutting;
6 could you not. We're in a pretty gray area here;
7 aren't we?

8 A. I guess it depends on what proportion
9 of the stand is being removed by selection cut.

10 Q. Yes. So it is possibility in
11 selection cutting which raises a concern with you?

12 A. My major concern is in the intensive
13 cutting, clearcutting type of operations.

14 Q. So you have no problem with the
15 full-tree harvesting and selection cutting systems?

16 A. I could hypothesize areas where I
17 might have concern. It wouldn't be my primary concern.
18 I wouldn't rank it as highly as a clearcut with
19 intensive logging.

20 Q. I'm not asking you -- sorry, I'm not
21 asking you to rank, I'm asking you: Do you have a
22 concern or do you not have a concern?

23 A. I guess in areas that are already
24 severely acidified I would have a concern.

25 Q. With full-tree harvesting in a

1 selection system, that's what you would have a concern,
2 in that circumstance; correct?

3 A. In already heavily acidified areas?

4 Q. Yes.

5 A. I would be concerned about anything
6 that reduced the acid neutralizing capacity of the
7 site.

8 Q. Including full-tree?

9 A. Yes.

10 Q. Just, you know, we'll get along
11 faster.

12 A. Yes.

13 Q. Okay. You state on page 14 of your
14 witness statement that, and this is Tab 1, Madam Chair,
15 of Exhibit 2200A.

16 MR. NEARY: A. I'm sorry, page...?

17 Q. 14?

18 A. 14.

19 Q. Right in the middle, the second full
20 paragraph:

21 "It is MOE's position that modifications
22 of operational logging practices are not
23 warranted providing that MOE term and
24 condition 21(c) is adopted."

25 So when I look at MOE term and condition

1 21(c), I see a modification to operational logging
2 practices that affects 90 per cent, I think that was
3 figure used from the CPPA, of the way harvesting is
4 done these days.

5 A. I don't see that. I see that on
6 full-tree harvest on shallow and very shallow sites.

7 Q. So that --

8 A. And I think we have agreed that there
9 is some difficulty in ascertaining what area of the
10 area of the undertaking is shallow and very shallow.

11 Q. All right. And you would agree then
12 that on those sites that is a modification of
13 operational logging practices?

14 A. The reason that we brought in the
15 acidification is as additional rationale for 21(c). It
16 is not only because of acidification.

17 But if the question is: Does 21(c)
18 recommend modifications of logging practices, the
19 answer is for shallow and very shallow sites, yes.

20 Q. And I don't understand that sentence
21 when it says it's MOE's position that modificiations of
22 operational logging practices are not warranted
23 provided MOE term and condition 21(c) is adopted when
24 you have just told me that with respect to those types
25 of sites it is a modification of operational logging

1 practices. What do you mean?

2 A. No, based solely on our acidification
3 concern we did not recommend modifying logging
4 practices.

5 Q. Well, you recommend, provided that
6 MOE term and condition 21(c) is adopted and that's a
7 modification of logging practices.

8 A. And we've brought forward our
9 evidence on acidification as additional rationale for
10 term and condition 21(c).

11 Q. Acidification occurs naturally;
12 doesn't it?

13 A. Yes. In forest soils, yes.

14 Q. And you can have a lake which, or a
15 sensitive water body which can acidify solely through
16 natural processes?

17 A. We have not found one in Ontario.

18 Q. Okay. But forest soils can acidify
19 naturally?

20 A. Yes.

21 Q. I understand there's a derth of
22 literature discussing the impact of forest activities,
23 logging and acidification?

24 A. No, there's not a derth of literature
25 on the effects of logging on site acidification, it's

1 impact on water acidification I think could be
2 characterized by a derth of literature.

3 Q. Okay. And you talk about in the
4 interrogatories - this is just finishing up, Madam
5 Chair - in the interrogatories -- I never say that
6 unless I mean it, Mr. Martel.

7 MR. MARTEL: No, no, I wasn't chuckling.

8 MR. CASSIDY: Q. In the interrogatories,
9 which are found in Exhibit 2201, you state quality of
10 lake water --

11 MR. NEARY: A. Can you direct me to --

12 Q. I'm sorry. Yes, it's Interrogatory
13 No. 12 on page 12 of MNR.

14 A. MNR.

15 Q. Tab 1 in Exhibit 2201. Do you have
16 it, Mr. Neary?

17 MR. NEARY: A. Yes.

18 Q. You state that:

19 "Quality of lake water is strongly
20 dependent on watershed processes. These
21 can include acidification, lakeshore
22 development or clearing of the
23 watershed."

24 And the Ministry asked you what that
25 meant clearing of the watershed, and your answer talked

1 about the proportion of the watershed without trees.

2 A. Cleared, yes.

3 Q. But what causes the clearing of the
4 watershed is what I'm interested in. Am I correct that
5 the clearing of the watershed could be caused by any
6 activity, urbanization, cottage development, Hydro
7 right-of-ways, logging?

8 A. Conversion to agricultural land use,
9 yes.

10 Q. Okay. Finally, are you aware that
11 there are people who disagree with your understanding
12 of the merit of the Timmer study?

13 A. Yes.

14 Q. And those people are scientists?

15 A. Yes.

16 Q. And, therefore, they may have a
17 different view of the need for caution than you do?

18 A. I've aware of testimony in front of
19 this Board to that effect.

20 Q. In fact I think the Timmer study is a
21 basis for your feeling there should be caution?

22 A. No.

23 Q. What is it?

24 A. We relied on much more than the
25 Timmer study in formulating our need for caution. We

1 relied on the Timmer study as a source of practical
2 ways of addressing that caution or implementing that
3 caution.

4 Q. Well, the way to implement that
5 caution is Exhibit 21(c) -- I'm sorry, your term and
6 condition 21(c).

7 A. Yes.

8 Q. And on page 7 of your witness
9 statement you state that -- you refer to the Timmer and
10 Savinsky and Marek study. I just want to get a handle
11 on it that the 21(c) which is your way of implementing
12 the caution is, in fact, a reflection of the Timmer
13 study, to the extent that all but one of those
14 recommendations is in that study.

15 A. No. We relied on the Timmer,
16 Savinsky and Marek study because it had a set of
17 recommendations which addressed the nutrient depletion
18 concerns that were formulated for practical application
19 by MNR foresters.

20 Q. All right.

21 A. I don't think that the Timmer,
22 Savinsky and Marek study is the best study of this
23 effect at all.

24 Q. What's wrong with it?

25 A. What's wrong with it?

1 Q. Yes.

2 A. Well, some of Dr. Methven's
3 criticisms of the report I think are valid.

4 Q. Can you tell me where you agree with
5 Dr. Methven?

6 A. I agree with Dr. Methven that they
7 didn't look at some of the other sources of nutrient
8 input like weathering and atmospheric input and things
9 like that, but I think that the conclusions drawn by
10 Timmer, Savinsky and Marek, Gordon, Mahandroppa,
11 Maliondo in a couple of studies all indicate that you
12 have to be careful with this type of logging method.

13 The only thing we relied on Timmer,
14 Savinsky and Marek were these practical methods --
15 practical approach to addressing the concern.

16 Q. That study was written in 1983;
17 correct?

18 A. Yes.

19 MR. CASSIDY: Thank you, Madam Chair.

20 MADAM CHAIR: Thank you, Mr. Cassidy.

21 Thank you very much, witnesses. We will
22 see you tomorrow morning at nine o'clock.

23 Thank you.

24 MR. FREIDIN: Before we rise, I didn't
25 have a chance to -- if I can just read for the benefit

1 of those who may want it some documents tomorrow.
2 These are the ones that -- including the ones that you
3 have got in front of you.

4 MADAM CHAIR: Excuse me, Mr. Freidin.
5 You can give that list to Mr. Pascoe for us.

6 MR. FREIDIN: Sure.

7 MADAM CHAIR: Thank you.

8 MR. FREIDIN: These are all the documents
9 you have got now, the spruce silvicultural guide,
10 Exhibit 5A, Exhibit 911, Exhibits 1973 --

11 MS. SEABORN: I'm sorry, Mr. Freidin,
12 just slow down a bit, either or just go make me a xerox
13 of that and I'll take it away.

14 MR. FREIDIN: All right, that will
15 probably be a better way.

16 MADAM CHAIR: Why don't we xerox your
17 list, Mr. Freidin? Mr. Pascoe will help get the list
18 xeroxed.

19 MR. FREIDIN: Mr. Pascoe, could you just
20 xerox that list. Thank you.

21 ---Whereupon the hearing was adjourned at 4:30 p.m., to
22 be reconvened on Monday, May 11th, 1992 commencing
at 10:30 a.m.

23

24

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